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ABSTRACT

Short descriptions of organizational structure and goals and descriptions of environmental education interests, activities, and priorities are presented for 32 nongovernmental organizations affiliated with the Alliance for Environmental Education. The organizations included are listed in the table of contents. The groups included represent a variety of age groups and interests. Among the reports are those for the American Association of State Colleges and Universities, American Federation of Teachers, American Forest Institute, Boy Scouts of America, Girl Scouts, League of Women Voters, National Education Association, United Autoworkers, and Zero Population Growth. (RE)

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ALLIANCE AFFILIATE ACTIVITIES: NON-GOVERNMENTAL ORGANIZATIONS IN ENVIRONMENTAL EDUCATION

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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December, 1978

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ENVIRONMENTAL EDUCATION INFORMATION REPORTS

Environmental Education Information Reports are issued to analyze and summarize information related to the teaching and learning of environmental education. It is hoped that these reviews will provide information for personnel involved in development, ideas for teachers, and indications of trends in environmental education.

Your comments and suggestions for this series are invited.

John F. Disinger
Associate Director
Environmental Education

Sponsored by the Educational Resources Information Center of the National Institute of Education and The Ohio State University.

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CONTENTS

Introduction 3

The Alliance for Environmental Education 9

Board of Trustees. 14
Executive Committee. 16

Affiliates of the Alliance for Environmental Education

American Association of State Colleges and Universities . . . 19
American Federation of Teachers. 21
American Forest Institute. 23
American Gas Association 32
American Institute of Architects 38
American Nature Study Society. 45
American Society for Environmental Education 47
Association for Environmental and Outdoor Education. 49
Boy Scouts of America. 52
Conservation Education Association 60
Edison Electric Institute. 62
Foresta Institute for Ocean and Mountain Studies 65
Girl Scouts of the U.S.A. 69
Humane Society of the United States. 74
International Council on Health, Physical Education, and Recreation. 76
Izaak Walton League of America 78
League of Women Voters 80
Massachusetts Audubon Society. 86
National Association for Environmental Education 91
National Association of Conservation Districts 97
National Audubon Society 104
National Council for Geographic Education. 107
National Education Association 113
National Parks and Conservation Association. 115
National Science Teachers Association. 118
National Wildlife Federation 121
The Nature Conservancy 126

CONTENTS (Continued)

Soil Conservation Society of America 131
United Auto Workers/Conservation Department. 138
Western Regional Environmental Education Council 143
Wildlife Management Institute. 152
Zero Population Growth 155

ALLIANCE AFFILIATE ACTIVITIES: NON-GOVERNMENTAL ORGANIZATIONS IN ENVIRONMENTAL EDUCATION

INTRODUCTION

One of the more intriguing aspects of environmental education is that so many organizations, agencies, institutions, and people have interest, and professional and personal stakes in it. "Environmental education" means many things to many people, is generally related in some way to their other interests and missions, and often occupies a position of some priority because the concept of "environment" cuts across nearly all disciplinary areas.

The basic mission of the Educational Resources Information Center (ERIC) of the National Institute of Education (NIE) is information flow in all areas of educational concern. Primary responsibility for environmental education has been assigned to the ERIC Clearinghouse for Science, Mathematics, and Environmental Education (SMEAC) at The Ohio State University. Thus, SMEAC has a high priority in locating, processing, and making available information related to environmental education.

To accomplish this purpose, ERIC/SMEAC has developed working relationships with organizations, agencies, institutions, and people concerned with environmental education on any and all levels, both within and outside of typical "formal" hierarchies. Many of ERIC/SMEAC's activities are directed toward facilitating communication between, among, and even within such groups, so that information useful to environmental educators of all types and stripes will be available in appropriate forms. It has been, and continues to be, gratifying that significant levels of cooperation have been developed, maintained, and strengthened.

Many of SMEAC's activities are developed, and prioritized, by requests from field practitioners; that is, as numbers of requests for specific types of information mount, higher priority is assigned to developing products designed to meet those needs. A frequent request has been for information related to the environmental education interests, activities, and priorities of non-governmental organizations, in convenient, readily accessible form.

Discussions with the Executive Committee of the Alliance for Environmental Education indicated that that group was also faced with similar requests, and was considering development of an appropriate response. It thus became apparent that the interests of the Alliance, ERIC/SMEAC, and other organizations, agencies, institutions, and people with which either group came into contact, would be well served by a cooperative effort.

Accordingly, a short outline (page 5) of what might constitute a useful report was developed and sent to member organizations of the Alliance for Environmental Education. The purpose of the outline was not to prescribe a rigid format, but merely to suggest types of information which interested parties might find of use. This volume represents the compilation of organizational responses to that request.

It is hoped that users of this volume will see it as a "first effort," not as an exhaustive compendium or as a polished product. Both the Alliance for Environmental Education and ERIC/SMEAC are aware of the incompleteness of the volume, but feel that it represents an appropriate step in the direction of making useful information available to those who have need of it.

John Disinger
ERIC/SMEAC

December, 1978

RECOMMENDED OUTLINE FOR REPORTS: ENVIRONMENTAL EDUCATION ACTIVITIES OF AFFILIATES OF THE ALLIANCE FOR ENVIRONMENTAL EDUCATION*

Purpose:

to prepare a convenient reference volume, useful to member organizations and other organizations, governmental agencies at all levels, school personnel, higher education faculty and students, and interested citizens, which will provide an overview of the environmental education objectives and activities of all member organizations of the Alliance for Environmental Education.

Each report to include (tentatively):

1. Overview of the general purposes of the organization, indicating the objectives of its involvement in environmental education as related to its general purposes.
2. Levels of involvement in environmental education--national, regional, local, etc.
3. Extent of involvement in environmental education--chapter and verse.
4. History of involvement in environmental education.
5. Target audiences of environmental education efforts.
6. Methods/techniques/procedures utilized in environmental education efforts.
7. Funding devoted/available to environmental education.
8. Products/publications related to environmental education.
9. Measures of success and/or lack of same.
10. Future plans related to environmental education.

Format:

1. The above is not intended to be a rigid outline, but merely a suggestion as to what the report might include. Variations are not only acceptable, but encouraged.
2. The report should be in narrative form, something on the order of 2000-3000 words.

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*This outline, with cover letter, was sent to the official representative to the Alliance for Environmental Education of each of the 32 affiliated organizations.

3. Use of tables/graphs/charts, etc., is encouraged, as appropriate.

4. Without being so scholarly as to be deadly, reasonable attention to the niceties of English grammar is encouraged.

5. Objectivity is paramount--not whitewashes, not blatant PR.

6. Do not submit publicity brochures or fliers in lieu of reports; the organization and tone of such materials are rarely appropriate for a compendium of this nature. However, such already-prepared materials are likely to be of material help as the report is prepared. It is appropriate to indicate availability, prices, etc., of organizational materials and services.

THE ALLIANCE FOR ENVIRONMENTAL EDUCATION

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As the environmental education movement began to take form in the early 1970s, the Conservation Education Association identified a need to join with similar organizations to determine ways collectively to assist and strengthen the growing environmental education thrust. Through a series of meetings funded by the Johnson Foundation and sponsored by the University of Wisconsin-Green Bay, the Alliance for Environmental Education was born in 1973.

Building a knowledge base and positive attitude toward the environment requires educational programs—formal ones through the schools, and non-formal ones through a variety of educational media. These educational efforts must cover all aspects—scientific, technical, social, cultural, aesthetic, economic—helping citizens understand the relationships and harmonize their needs within ecosystem processes.

Basic to decisionmaking regarding environmental management or resource conservation in a democratic society is a citizenry aware of the pressures on renewable and non-renewable resources for a variety of uses, willing to explore all points of view, capable of making informed decisions, and committed to supporting those decisions with public actions.

At least three major segments of our society can be identified as informed about environmental affairs and interested in a citizenry capable of making intelligent decisions: the federal resource and education agencies; the state resource and education agencies, including institutions of higher education; and non-governmental organizations with varied interests, such as those which are members of the Alliance for Environmental Education. Each segment has expertise, information, and a perspective—or perspectives—important to an understanding of environmental problems.

In the area of water pollution, for example, concerns are voiced by many interests—the federal and state governments which are generally responsible for regulations; citizen groups, generally concerned with the quality of the environment for all living things; those users of water involved in supplying our society with products for the standard of living each of us enjoys. All of these need to be heard in relation to this environmental issue.

In addition, in a democratic society such as ours, these audiences as well as civic groups, youth group leaders, and the formal education establishment are concerned that future leaders, the youth of today, have the important skills of critical thinking and problem solving necessary to help determine future directions in environmental policy; most importantly, they must be capable of supporting decisions with public actions.

The Federal Interagency Committee on Education's (FICE) Subcommittees on Energy and the Environment and on Environmental Education serve as forums for agencies of the federal government in environmental education. At the state level, agencies are beginning to form networks similar to the Federal FICE. State environmental education coordinators in state education agencies are establishing a national organization. State associations of concerned citizens are beginning to be heard. And, at the national level, the Alliance for Environmental Education serves as a voice for many of the non-governmental groups concerned with the environment. It is all of these elements that are beginning to weave a web of information exchange and cooperation, forming a foundation for a national strategy for environmental education.

The Alliance for Environmental Education joins together 32 non-governmental organizations with the common goals of interests and programs in environmental/energy education at the regional and national levels. The purpose is to encourage development, implementation, and coordination of effective environmental education programs among members, as well as to explore cooperative ventures with other groups and segments in the environmental education field. The membership includes groups representing youth organizations, professional educators and other professionals interested in environmental education, civic, conservation/environmental, and industry/labor organizations. Each member organization is represented on the Board of Directors of the Alliance for Environmental Education by a delegate, and has one vote in decisions made. An Executive Committee serving for one year is elected by the Board of Directors; it consists of the President, a President-Elect, a Vice-President, a Treasurer, and an Immediate Past President, three Members-at-Large, and at least one Alternate-at-Large. The Executive Committee meets four times a year; the Board, at least once a year.

Activities and accomplishments of the Alliance for Environmental Education include:

1. Planning and coordinating a continuing series of national conferences designed to identify and implement a national strategy for environmental education—

July 6-9, 1975	Environmental Education Perspectives and Prospectives, at Snowmass, Colorado
October 5-8, 1976	North American Regional Seminar on Environmental Education, at St. Louis, Missouri
March 28-30, 1978	From Ought to Action in Environmental Education, at Washington, DC

   Printed reports of all these conferences are available from SMEAC Information Reference Center, or through the ERIC system in microfiche. In addition, mailings have been made to many key individuals.

2. Participating in the development of the document used by the United States Delegation to the International Conference on Environmental Education, Tbilisi, Georgia, USSR, in October 1977.

3. Publishing a newsletter, Alliance Exchange, covering the latest developments in the environmental education field, for distribution to members of the Alliance for Environmental Education and other environmental education decision-makers.

A simple listing of proceedings titles can in no way indicate, though, the catalytic role of an organization such as the Alliance for Environmental Education. A few examples of follow-through to conference recommendations will more adequately illustrate the Alliance's part in national leadership in environmental education.

The July 1975 (Snowmass) conference brought together representatives of federal and state resource and education agencies, conservation organizations, professional groups, and industry/labor. Discussions centered around individual group goals. Useful and productive interchanges took place among interest groups, with suggestions made for additional goals from different perspectives.

The October 1976 (St. Louis) conference was part of an international effort, initiated in 1975 at the Belgrade Conference on Environmental Education, under the guidance of Unesco. The St. Louis meeting was one of a number of regional and subregional conferences around the world which prepared input for the October 1977 Tbilisi conference. Reports from the regional and subregional conferences, including St. Louis, adapted the Belgrade recommendations to local needs, then became a part of the input to the Tbilisi Conference.

The March 1978 (Washington) conference was a follow-up to the Tbilisi Conference. It was designed to begin to develop a national strategy for environmental/energy education based on the outcomes of previous U.S. national conferences and the Tbilisi meeting. The Alliance for Environmental Education has assumed a leadership role in setting the course for a number of the recommendations from the March 1978 conference.

Dr. Mary F. Berry, Assistant Secretary for Education, U.S. Department of Health, Education and Welfare, in her keynote address at the March 1978 conference suggested that a National Center for Environmental Education be established. Participants at the conference discussed the idea, endorsed it, but did not have time to develop a process for bringing the Center into being. The Alliance contacted Dr. Berry following the meeting with the suggestion that she convene a small task force of those who had worked on her recommendation related to the Center concept, and others, to explore the idea further. She elected to turn the problem over to the FICE Subcommittee on Environmental Education. That group presently has an initial proposal for the Center. This document is being shared with members of the Alliance for Environmental Education and others, seeking their suggestions and input since the Center was conceived as a gathering place for all those involved in environmental education—federal and state agencies, and non-governmental organizations.

It was also recommended that there be another survey of state legislation related to environmental education, and that legislation now on the books be evaluated as to its effectiveness. The Alliance asked

the ERIC Information Analysis Clearinghouse for Science, Mathematics, and Environmental Education (ERIC/SMEAC) to include in its 1979 program a new survey of state legislation; this survey will be conducted. When completed, it will be determined if the legislation can be effectively evaluated.

One of the major areas discussed during the March 1978 conference was state-level networking of agencies and non-governmental organizations. There are already several good examples of state agencies grouping into state "FICEs," and of state-level associations and alliances. Information concerning these is being gathered and shared through the Alliance Exchange. A survey has been initiated, but not yet completed, of alliances and associations at the state level, their purposes, their membership patterns, and their programs. Members of the Western Regional Environmental Education Council, an Alliance affiliate, will be developing models for state networks of all audiences interested and involved in environmental education, to share with the environmental education community.

Several Alliance affiliates having state chapters or organizations are transmitting the report of the March 1978 conference to chapter presidents to consider what might be done by the non-governmental organizations to encourage environmental education at the state level. State education agency environmental education coordinators have received copies of the report, and have been informed of other mailings into their states so that state networks might be established through which to spread the results of not only the March 1978 conference, but the 1977 Tbilisi intergovernmental conference as well.

At the urging of participants in the March 1978 conference, the Alliance has developed a closer relationship with the FICE Subcommittee on Environmental Education. Planning has begun by an Alliance affiliate on determining a classification system for environmental education for use by small libraries and resource centers.

Finally, the Alliance for Environmental Education has, at the recommendation of conference participants, requested Dr. Berry to inventory programs of the U.S. Office of Education to identify areas of support for environmental education. These would include not only funding sources, but also divisions and departments that can in other ways establish an atmosphere of acceptance and support for environmental education.

Work is in process on a number of other recommendations from the March 1978 conference. As with all organizations, particularly ones without staff, the accomplishments of the Alliance for Environmental Education can be only as strong as the willingness of members to participate. Fortunately, members of the Board of Directors and the Executive Committee have been willing to see that the Alliance Exchange, the conferences, and the follow-up do happen, and successfully.

This collection of reports of the programs of affiliates of the Alliance for Environmental Education is designed with two purposes in mind:

--It will serve to introduce the reader to the contributions of the members of the Alliance, as non-governmental organizations,

to the environmental education field. With knowledge of each affiliate's program, it becomes easier to identify common threads and interests that serve to unite such a divergent membership to work in harmony.

--The collection also gives affiliates the opportunity to identify previously unrecognized strands of common activities and emphases so they can begin to join together even more—to strengthen their individual efforts, and those of the Alliance for Environmental Education, in making progress toward the national goal of a citizenry more environmentally aware and capable of participating in environmental decisionmaking.

As for the future, the Alliance will continue in the role of a catalyst, providing conferences and forums to refine efforts now being made to weave environmental education into a more cohesive whole, including all components—energy, population, food, water, air, etc.—and particularly to weave a stronger web for exchanging and sharing information.

June McSwain, President
The Alliance for Environmental Education

December 1978

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AMERICAN ASSOCIATION OF STATE COLLEGES AND UNIVERSITIES

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The American Association of State Colleges and Universities (ASSCU) is composed of 325 state colleges and universities located throughout the United States and the territories of Guam and the Virgin Islands. The member organizations have a combined enrollment of approximately two and one-half million students and award 45 percent of the baccalaureate degrees granted by public institutions and 40 percent of all baccalaureate degrees granted in the U.S.A.

State colleges and universities demonstrate a rich diversity of programs available in public higher education. The learning environments of the institutions vary greatly, thereby offering a wide selection of educational programs and learning environments to accommodate the individual needs of students who depend upon public institutions for their education.

The AASCU is committed to educational opportunity and to public service. State colleges and universities work closely with state and local governments and private industry to prepare students to meet the employment demands of the future and the challenges which accompany population growth and societal changes.

While many state colleges and universities have developed quality graduate programs with opportunities for research, the primary objective of these institutions is to provide quality undergraduate education to those who seek it and can benefit from it.

The AASCU was formed in 1961 and since its inception has expanded its operation to include the many diverse activities associated with institutions of higher learning.

AASCU provides its members with analyses of federal programs and legislation and arranges for the views of its members to be presented for consideration in legislation and policy-making.

AASCU promotes opportunities to study abroad, faculty exchanges, and cooperative assistance for developing countries. Its programs have enabled institutions of higher learning to develop new relationships between institutions of higher learning and other segments of society. AASCU is actively involved in establishing new programs that will assist its members in meeting the needs of students and the community in areas of humanities, minority education, allied health administration, or urban programs.

In addition to these programs, AASCU serves as a general information resource for its members and a forum so that its members may communicate with each other and with external groups.

The basic policies of AASCU are formulated at the annual meeting each Fall. The meeting enables presidents and chancellors of member institutions to explore current issues and problems and to respond with policy statements and resolutions adopted by the membership.

AASCU is funded primarily through membership dues. However, additional funds are received through foundation and government grants and contracts.

AASCU has established a Committee on Environment, whose primary objectives are to encourage the establishment of new programs and the expansion and improvement of existing programs in environmental education, training and services. The committee encourages its members to work closely with their respective communities in providing information on environmental issues.

--Submitted by:

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October 1978

AMERICAN FEDERATION OF TEACHERS

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The American Federation of Teachers (AFT) is an international union representing over 500,000 teachers, paraprofessionals and other education employees. Among its many functions are the protection of its members' interests, the pursuit of democracy and quality in education, and promotion of the general social welfare.

The AFT's involvement in environmental education has focused on creating an awareness of its need, disseminating information on environmental issues, urging accrediting associations to include assessments of environmental education programs in school evaluations, providing testimony on the need for additional federal funding in this area, and offering inservice workshops in this field. Participation in the Alliance for Environmental Education also has been beneficial to the organization in sharing its concerns and obtaining the benefits of others' experiences.

While the AFT at all levels, national, state and local, has addressed the environmental education issue in various ways, it would be misleading not to point out that it is individual teachers who are most intensely involved, who provide the actual education to students, and who provide the basis for the union's supportive services.

It was teachers who brought policy resolutions before AFT conventions, thereby increasing the organization's attention to environmental issues. The primary dissemination vehicle has been union newspapers which include frequent articles and news items related to the environment and ecology. Lesson plans and suggested activities for Earth Day and Earth Week have appeared in the national monthly newspaper. In addition, since the establishment of AFT's annual education conference eight years ago, sessions on environmental education have been included in each. The effect of these efforts, coupled with the much broader activities of organizations devoting their full energies to environmental education, is a teaching force much more sensitized to environmental issues than at any time in the past. The consequence is that this information and awareness are passed on to students at all levels in the schools.

The implementation of teacher centers which will respond to the needs of teachers for inservice education and eventually become involved in curriculum development should further advance the development and spread of environmental education in the schools. Teacher center involvement in this area is expected to increase in proportion to the increase in environmental awareness. The AFT Teacher Center Resource Exchange plans to facilitate this process. Up until now, the greatest responsibility for information gathering and sharing has been on the

shoulders of individual teachers. Again, it is they who have sought out expertise among their own colleagues and others and shared this with their students and other teachers. Teacher centers should lend support to this effort and broaden its impact.

The AFT realizes the importance of environmental education to its own members and to society at large. It will continue to highlight issues as they emerge, disseminate information, and work with other groups to improve environmental conditions. A case in point is support given to the Environmental Defense Fund in the campaign to persuade the Environmental Protection Agency to identify all schools in which asbestos spray-on materials have been used and to require manufacturers and processors of such fiber to take corrective action to eliminate the emission of asbestos fibers from these materials.

AFT shall continue to offer its support, in terms of lobbying, coalition building and information dissemination, to worthwhile causes and projects.

—Submitted by:

Marilyn Rauth, Director
Educational Issues Department

December 1978

AMERICAN FOREST INSTITUTE

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American Forest Institute (AFI) is the public education organization for the forest products industries, those landowners and companies that grow and harvest trees and manufacture wood and paper products. The general purpose of the association is to raise the level of understanding of the general public for the forest resource, its ownership, management, and uses, the environmental problems related to the cultivation of trees as a crop, and production of goods from the resource.

Structurally, AFI's program elements are designed to reach those segments of the general public usually defined as the formal education audience, professional and conservation organizations, individual private landowners, community leaders, legislators, and the press. With each, the theme of the message is usually the availability of the resource for use, whether related to fiber for product manufacture, recreation uses, or watershed and wildlife management. However, with the present level of consciousness about wilderness, air and water pollution and solid waste, specific environmental concerns as they affect the industry's capability to provide for the public needs in paper and wood products have increasingly become a focal point of information directed to audiences other than educators.

With the total program an educational effort and with the forest resource as a base for that program, it is somewhat difficult to determine the scope of the association's level of involvement in "environmental education."

Narrowed to the formal education audience, AFI's present program reaches teachers and administrators at the national, regional and local levels. Three major thrusts can be identified: 1) participation in professional and conservation/environmental organizations within the education field; 2) publication of materials for teachers for distribution through AFI and industry associations and companies in answer to requests for information on the forest resource; 3) dissemination of an environmental education supplementary curriculum for educators in grades kindergarten through twelve, Project Learning Tree, through AFI-funded, state-department-of-education-coordinated, workshops.

AFI's educational program began almost with the establishment of the organization itself in 1941. The program consisted of various publications for all grade levels directed to the student with a limited number of "how to" manuals for the teacher. Development of the materials was by the association's education and art departments. Distribution depended upon mailings to superintendents of schools. If numbers of items mailed could be used as an indication, the booklets and wall charts were well-received. No formal follow-up evaluation of actual classroom use was made, however.

During most of the association's history, items for distribution to schools were directed to students and included booklets, wall displays and film clips produced in-house, with little or no input from educators. As the student population grew and the demand for classroom items increased, AFI re-evaluated its education program and determined that it could be more effective directing efforts toward teachers and administrators. Educational consulting firms were contacted for help in developing an appropriate program and materials to reach this segment of the education audience. As a result, teaching units were produced and inserted as advertisements in the elementary Instructor Magazine and the secondary Scholastic Teacher. Filmstrips produced in cooperation with Guidance Associates were added to the collection of items for dissemination to teachers as well. All are still a part of AFI's program inventory for answering requests from educators on the forest resource.

Memberships and active participation in professional education organizations and conservation associations became more a part of AFI's education program. With this exposure to the practicing educator, it became apparent that if educational materials were to be designed to reach as specific an audience as teachers, they should be developed with the direct participation of the professional educator.

One of the organizations in which AFI has maintained membership is the Western Regional Environmental Education Council (WREEC). WREEC membership is composed of the environmental education coordinators for the state departments of education in 13 western states, and their counterparts in the appropriate state resource agencies. One project in which the organization was involved was a supplemental curriculum for grades kindergarten through twelve that dealt with energy.

After reviewing this program, AFI asked WREEC if it would undertake a similar curriculum development in environmental education, using the forest resource as a base. A contract was let to WREEC for such a product.

Education/Research Systems, Inc., an educational consulting firm in Seattle, coordinated writing workshops for teachers, supervisors, curriculum specialists and college professors. These teams produced a core curriculum framework of seven principles relating to the forest, man and the environment. Activities for teachers to use with students in grades kindergarten through twelve were created using this framework and accompanying concepts. Persons familiar with natural resources from industry, state and federal resource agencies, and conservation organizations with points of view differing from those of the forest products industry acted as reference sources for the educators.

The result was two curriculum guides of teacher-oriented classroom activities, kindergarten through grade twelve, entitled Project Learning Tree (PLT), with the curriculum framework as a basis for the activities and a bibliography of reference materials from all types of organizations, companies and resource agencies. Activities were interdisciplinary relating to science, social studies, language arts, and mathematics.

Educators had helped in developing the program for teachers; their advice was sought in appropriate ways to introduce the project as well.

A council with membership from industry and WREEC was established to guide the day-to-day progress of Project Learning Tree under the overall policy of AFI's industry education subcommittee. On the advice of the Council, the curriculum guides which were a result of the writing conferences, were introduced to educators through attendance at workshops only. These sessions were coordinated through the state department of education's environmental education consultant. A team of three educators was hired on contract to AFI to work with the departments of education in setting up workshops.

As teachers began to become familiar with the program and use it with students, the Council advised a classroom evaluation of the impact of the activities on the knowledge and attitudes of students be made. The Bureau of School Service and Research at the University of Washington, Seattle, was contracted to undertake the testing. Educators, knowing the constraints of the study in time and financing, agreed that the results demonstrated value in continuing the program. Evaluation of the program continues, however.

Comments received from teachers participating in the evaluation and in the workshops indicated that some changes in the content and format of the curriculum guides would make them more useful to educators. The PLT staff, with the help of the advisory council to the project, undertook a revision in the manuals, including format, updating of activities in facts and strategies, and a more current bibliography directly referenced to lessons in the guides.

From the two years of field work in the west where the program developed, a basic plan for nationwide implementation grew, with accommodations made according to individual state differences.

Generally a planning committee is established in a state introducing the program. The committee is made up of the state department of education environmental education consultant and other key figures in the field in the state. With one of the Project Learning Tree staff members, the committee determines a strategy including workshop location, participant selection, date and budget, for implementing the program in the state. Usually the initial workshop is two days in length in order to give educators a knowledge of the program so they will feel comfortable teaching teachers in their districts about the program in one-day sessions. Funding is provided by AFI for the leadership workshop, with a much smaller sum for local sessions to help defray some costs. Materials are provided free by AFI.

As of December 1978, the program was available in 20 states. Plans are to add four more during 1979. As budget allows, additional states will be added each succeeding year. Selection of the states is made according to budget level, teacher population, and geographical size.

Participants in workshops are asked to fill in evaluation forms at the ends of sessions. Comments are useful in determining the reaction to materials and to the workshops. Names and addresses are added to a mailing list to receive a periodical newsletter related to the program. As an added check on the progress of the project, a survey is now being made of a random sampling of teachers on the mailing list, to determine actual classroom use of the curriculum guide activities.

Project Learning Tree is an attempt by industry to provide an unbiased, balanced group of activities for teachers to use in the classroom to create an awareness of, and knowledge about, the forest resource. The program also supplements the regular curriculum in providing situations for reinforcing the basic skills of critical thinking and problem solving—both important to future citizens facing the possibility of resource shortages and land allocation.

Although not as extensive in scope, AFI's elementary and secondary teaching units from The Instructor and Scholastic Teacher advertisements, career materials, wall displays showing the growth of a tree and forest regions of the United States, have enjoyed good response over the years. Information concerning these educational materials used to answer written requests from teachers is made available to educators principally through listings in free and inexpensive catalogues. Use is extended through distribution by state forestry associations and companies in local programs with educators.

AFI's policy regarding quantity availability and cost of materials for teachers has changed over the years. When materials were designed for students, these were given to teachers in classroom quantities. As production costs increased, charges were made.

As the program changed to one of distributing only materials for teachers, printed items were once again offered free of charge in single quantity with a charge for additional supplies. That policy is still in effect.

In recent years AFI has published a quarterly magazine designed for the general public, GreenAmerica. The largest audience for this publication, according to a survey of readership, however, is educators. Each issue deals with a specific topic—wilderness, water, wildlife—in a format including both text and poster. The magazine is made available free with a one-time charge of a dollar for handling.

In order to keep abreast of developments in the field of education, AFI has become a member of various professional education organizations. The participation role has included attendance at annual meetings to learn of new projects and approaches to education; attendance at special conferences dealing with environmental education to follow progress in that field; membership on association committees and executive officer responsibilities in several organizations.

Most active participation has been in the National Science Teachers Association, National Association for Industry-Education Cooperation, Conservation Education Association, National Association for Environmental Education, Western Regional Environmental Education Council, and as a charter member of the Alliance for Environmental Education.

Another major benefit to membership of AFI in professional education associations is the ability to seek and find those who are leaders in the development and implementation of education programs. Through the advice and counsel of educators, industry efforts in the field of education can be better developed in a context and form acceptable to the formal school system. And, in the field of environmental education where all points of view need to be considered in making decisions, industry's knowledge of resource management and use, environmental problems in manufacturing, and economic consequences of actions, should be a part of the mix.

Through the Alliance for Environmental Education, particularly, environmental education becomes a common ground for interaction among industry association members such as AFI, professional education organizations and numerous conservation organizations, all of whom do not necessarily agree in other arenas where they might meet. Cooperative efforts have spawned projects that, through exposure of the participants to diverse points of view, have given a new dimension to understanding and accepting problems faced by various segments of society in their spheres of operation.

AFI maintains an industry-forestry school interchange program with the faculty of forestry schools throughout the country. The direction for the industry-forestry school interchange program is provided by a committee with membership from industry and faculties of several forestry schools throughout the country, so as to make the elements of the program more responsive to the needs of the audience.

The program has provided the opportunity for deans or their faculty members to participate in tours so they may become more knowledgeable about advances in industrial forest management, particularly in regions of the country with which they are not familiar—taking westerners to the south, southerners to the west, for example. An exchange program is being developed to provide short periods of employment in the industry for forestry school faculty. Several industry executives have been visiting professors on forestry school campuses.

At present, with the formal school system, AFI plans to continue to supply materials to teachers and other educators who write regarding the role of the forest resource in the environment. Items will be updated as needed; new materials will be added as indicated by changes within the education field, teaching methods and strategies. Hopefully, Project Learning Tree will continue to expand to include any states interested in carrying the program. Memberships in professional educational organizations will be maintained. The industry-forestry school interchange program will be evaluated and expanded or changed according to the results.

In an informal way, AFI's Tree Farm program reaches a special audience with information of an educational nature about the forest resource.

AFI sponsors on a national basis the American Tree Farm System. The objective is to encourage the individual private landowner to manage his/her lands with some primary purpose in mind—timber, recreation or wildlife. The individual private non-industrial landowner—farmers, doctors, policemen—own more commercial forest acreage as defined by the U.S. Forest Service than do federal-state governments or industry.

Conferences are held for landowners in urban and suburban areas to develop a greater awareness of the resources they own and their relationship to it. Professional foresters work with landowners interested in managing their lands to develop a plan suitable to the needs of the owner. As lands meet the standards set by foresters working with the American Tree Farm System, they are certified as Tree Farms.

In order to ensure the level of standard for the program, lands are reinspected on approximately a five-year basis. If not acceptable, tree farm status can be revoked.

On a regional basis, owners in the program compete annually for regional Tree Farmer awards. Winners are then qualified to compete in the National Tree Farmer of the Year Contest. Judges for the award are members of the steering committee for the industry-forestry school interchange program.

Regional and national winners in the awards program from the South have gathered recently to act as an advisory/sounding board to the future direction of the American Tree Farm System. Again, AFI's intent is to work with the audience to develop, hopefully, the most acceptable program to meet common needs.

The Tree Farm program is in the process of adding a new dimension, the Pioneer Tree Farmer. This new step toward certification will allow those who own lands but have done no management to become a part of the Tree Farm system if they agree to develop and carry out plans for managing their lands. They would be added to the tree farm records to receive information for a period of two years. At that time if the lands are not ready for certification as a Tree Farm, the landowner if interested must reapply for membership in the Pioneer program or be dropped from the rolls.

Attempts to measure the successes and failures of programs have not always been made in a formal way. AFI's program direction overall is guided by the results of an annual public opinion poll, conducted by Yankelovich, Skelly and White. A yearly review of that document to some extent is a measure of the effectiveness of AFI's and the industry's communications programs.

With the formal school systems, the effectiveness of materials sent in answer to requests from teachers is basically measured by the

AFI EDUCATION PROGRAM

Audience	Reached By	Distributed By	Availability	Feedback/Evaluation
K-12:				
Teachers; Curriculum specialists; State and local superintendents, principals; Colleges of Education	Teaching Aids	AFI; forest industry associations and companies	through listings in free and inexpensive teaching aid catalogs	only through numbers orders
	GreenAmerica	AFI; forest industry associations and companies	through AFI mailing list	surveys, letters
	Project Learning Tree-- -state planning committees -workshops -participation and with crediting -curriculum guides -newsletter -evaluation	AFI/WREEC; state departments of education	through workshops in selected states only	evaluations, surveys and direct contact
	Membership in professional organizations			one-on-one at meetings, correspondence
Federal, state, local natural resource agencies; national regional, local conservation organizations	Project Learning Tree-- -state planning committees -workshops -curriculum guides -newsletter -fiscal agent	AFI/WREEC; state departments of education	through workshops in selected states only	surveys, direct contact
	Membership in professional organizations			one-on-one at meetings, correspondence
Forestry School Faculty	Short-term employment Speakers Tours	AFI/industry companies		direct contact, correspondence

Educational publications and filmstrips available from AFI:

GreenAmerica Magazine
Quarterly; single copy subscription is available for a one-time handling charge of $1.00. Cost: 1-10 copies, free; 11-500 copies, 10¢ each.

Learn to Love Trees
Instructor Magazine teaching unit reprint for elementary teachers.
Cost: 1-10 copies, free; 11-500 copies, 12¢ each.

Trees Want You
Scholastic Teacher Magazine teaching unit reprint for secondary teachers.
Cost: 1-10 copies, free; 11-500 copies, 10¢ each.

Growth of a Tree
Chart and teaching suggestion booklet for teachers.
Cost: single copy free; additional copies, 20¢ each.

Forests and Trees of the United States
Map and teaching suggestion booklet for teachers.
Cost: single copy free; additional copies, 20¢ each.

Colleges and Universities offering professional education programs for careers in the forest products industries.
Cost: 200 copies free; additional copies, 15¢ each.

Opportunities Unlimited in the Forest Products Industries.
Cost: 200 copies free; additional copies, 15¢ each.

Schools and Colleges offering technical and vocational education programs for careers in the Forest Products Industries.
Cost: 200 copies free; additional copies, 15¢ each.

This Unique Bit of Life filmstrip with record.
10-minute for high school science classes.
Cost: $27.50; slide form, $16.50.

Trees for 2001: Today's Foresters in Action filmstrip with record.
12-minute for high school social science classes and career guidance.
Cost: $26.00; slide form, $16.50.

Operation Salvage: Paper As A Reusable Resource filmstrip with record.
17-minute for high school social science classes.
Cost: $26.00; slide form, $15.00.

20/20 Vision: Forests for the 21st Century slide presentation.
20-minutes for general audience and private forest landowners stressing the need for non-industrial private forest land management.
Cost: $30.00

number of items ordered each year. Project Learning Tree, as a more extensive endeavor, has been formally evaluated and will be classroom-tested in the future. As mentioned, a current survey is being conducted to determine the effectiveness of the workshop system used to implement the program and the extent of use of the program in the classroom by teachers after having attended a workshop.

The industry-faculty interchange program is a little young yet to be evaluated in any formal way. The tours are, however, always well-subscribed. Future acceptance will measure the success of other elements in the program. The American Tree Farm System, although nationally sponsored by AFI, is guided in each state by a Tree Farm Committee. The number of committees actively working to improve the management quality of the lands certified and to encourage other owners to join the program has increased markedly, a possible method of measurement of success. The programming suggestions to reach goals of the program have become more creative and extensive with grant monies supplied to committees by AFI.

What elements of AFI's programs will continue in the future is hard to determine. AFI must depend on a level of funding formulated year to year on industry sales of domestic products, with no given continuing base of operation, plus a review by the industry of the effectiveness of AFI's public and formal school communications programs. With this in mind and knowing the continuously changing resource and environmental picture, predicting precisely the type and extent of future programming is difficult.

--Submitted by:

June McSwain
Director of Education

December 1978

AMERICAN GAS ASSOCIATION

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Since its founding in 1918, the American Gas Association (A.G.A.) has served as coordinator and spokesman for gas companies serving American consumers. A.G.A. also functions as the industry's catalyst in technical and governmental matters.

It is the purpose of A.G.A. to enhance appreciation of the essential role of gas in meeting the nation's energy needs for the foreseeable future. Natural gas has long been recognized as the least polluting of the fossil fuels (coal, oil, natural gas) which at present provide approximately 95 percent of the energy consumed in the United States. Because natural gas is not only the least polluting, but also is the largest contributor of domestically produced fuel energy among the fossil fuels to both industrial and residential markets, the question of its future role must be continuously answered.

To make national, regional, and local governing bodies and the general public aware of the effects of proposed modifications in the fuel energy mixture that supplies the nation's energy needs, now and in the future, continues, therefore, to be a major association effort. Since fuel energy production and use impinge on virtually every area of man's environment, A.G.A. has supported numerous studies and analyses to evaluate these potential impacts. In the study *Commercializing High-BTU Coal Gasification: The Rationale for Immediate Action,* it is noted that "from the environmental perspective—including physical, chemical, biological, and socio-economic impacts—the coal-gas-to-user cycle would produce significantly less environmental damage than coal electrification at every major step along the way to the consumer." This same study points out that "a recent FEA/EPA study suggests that all the coal gas plants that are proposed for inclusion in the federal load guaranty program would comply with, and even exceed, the most stringent version of the non-degradation amendments presently before the Congress." Other environmental concerns such as water resource use, land impacts, disposal of solid wastes, and socio-economic impacts are also spoken to in this same study.

Another study has been done to estimate CO_2 emissions caused by burning various fossil fuels and to compare CO_2 emissions produced from two alternative coal-based energy strategies: High-Btu coal gasification and gas combustion versus direct coal combustion for electricity generation.

These analyses and many others which evaluate economic and concommitant impacts of alternative energy sources have been presented before committees of the Congress, provided as background for writers on the subject of energy, used as material for speeches made by A.G.A. staff supplied to college students and college faculty upon request, and made known to the media through press releases.

A.G.A. ANALYSIS PROGRAM UPDATE, JUNE 1978

Analyses Completed in 1977 and 1978*

Title	Release Date
Commercializing High-Btu Coal Gasification: The Rationale for Immediate Action	4/77
"A Comparison of Coal Use for Gasification Versus Electrification"	4/77
"Impact of the President's Proposed $1.75/Mcf New Gas Price Ceiling on Domestic Gas Production"	5/77
"A Comparison of Estimates of Additional Natural Gas Production from Deregulation of New Gas Prices"	5/77
"Economic Effects of the President's Proposed Natural Gas Users Tax"	6/77
"Effects of the House Ways and Means Committee Revisions in the President's Proposed Gas Users Tax"	7/77
"Carbon Dioxide Emissions from Fossil Fuel Combustion and from Coal Gasification"	9/77
"Evaluation of the President's Proposed Supply-Side Energy Strategy"	9/77
"Consumer Cost of the Energy Tax Measures Contained in HR 8444"	10/77
"Impacts on Consumer Prices of the House and Senate New Gas Pricing Legislation"	10/77
"An Analysis of the Constraints on Converting Large Industrial and Utility Boilers from Natural Gas to Coal"	11/77
"A Historical Comparison of Production and Consumer Costs of Natural Gas Versus Alternate Energy Forms"	12/77
LNG Fact Book	12/77
"An Evaluation of Energy Conservation in the Residential Gas Spaceheating Market"	2/78
"A Comparison of Foreign Energy Payments Resulting from Importation of LNG Versus Oil"	2/78

*Single copies available free of charge on request from A.G.A.

Analyses Completed in 1977 and 1978 (continued)

Title	Release Date
"A Forecast of Capital Requirements of the U.S. Gas Utility Industry to the Year 2000"	3/78
"Implications of the Department of Interior's August Lease Sale on Future Offshore Production"	3/78
"A Survey of the Role of LNG Peakshaving Facilities in Meeting U.S. Utility Gas Demands"	3/78
The Importance of Gas Energy to Labor	3/78
"An Evaluation of Trends in the Househeating Market"	4/78
"Drilling Activity and Potential Gas Resources"	4/78
"The Impacts of Increased Gas Supply on the Nation's Economy and Employment"	5/78
"A Comparison of Capital Requirements for Alternative Domestic Energy Supplies"	5/78
"Impact of the NEA Gas Pricing Compromise on Disposable Family Income"	6/78
"The Economic and Environmental Impacts of Gas Versus Coal in Large Industrial Boilers"	8/78
"Forecasted Production of Lower-48 Conventional Natural Gas Under the House/Senate Gas Pricing Compromise"	9/78
"An Economic Comparison of Gas/Solar House Heating Systems Versus Electric/Solar Systems"	9/78
"Potential Health and Safety Impacts of High-Btu Coal Gasification: Occupational"	9/78
"The Impact of Gas Curtailments on the Growth of Oil Imports Since 1973"	9/78
"An Economic, Efficiency, and Environmental Comparison of Current Alternative Household Space Conditioning Systems"	11/78
SNG Fact Book	12/78
"The Impact of Natural Gas Production on Developing Offshore Frontiers"	12/78
"Prospects for Using Natural Gas in Light Transportation Vehicles"	12/78

TEACHING AIDS ABOUT GAS*

Kits

N00010 Natural Gas—Science Behind Your Burner (grades 6-9). Includes one 37-frame filmstrip with teacher's guide, two wall charts, two duplicating masters.

N00100 How Your Gas Meter Works (grades 6-9). Includes one booklet, one wall chart, two duplicating masters.

N00160 Natural Gas Serves Our Community (grades 4-5). A cutout kit.

N00170 Natural Gas Serves Our Community (grades 2-3). Same as N00160, but written for lower grade level.

N00500 Science Principles and Gas Appliances with Experiments (grades 7-9). One booklet, with materials for overhead projection and one duplicating master.

Booklets and Pamphlets

N00085 Experiments: Properties of Gas and Heat Energy (grades 7-11).

N00140 The Science of Laundering (grades 9-12)

N00165 Natural Gas Serves Our Community (grades 4-5).

N00175 Natural Gas Serves Our Community (grades 2-3).

N00430 History of Natural Gas (grades 3-6).

N00470 Gas Centered Projects for Science Fairs (grades 7-12).

N00480 The Story of Natural Gas Energy (grades 6-12).

N00550 What is a Gas? (grades 3-6).

N00575 What Happens When You Turn on the Gas (grades 4-7).

N00645 Newsletter "Energy Balances" (grades 7-10).

N00650 Newsletter "Natural Gas Energy and the Environment" (grades 7-10).

N00655 Newsletter "Natural Gas from Unconventional Sources" (grades 7-10).

N00660 Newsletter "LNG" (grades 7-10).

N00665 Newsletter "Coal Gasification" (grades 7-10).

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*These items are generally furnished free of charge by local gas companies. If not available in this manner, they may be secured from AGA.

N00670 Newsletter "Drilling for Energy--Offshore" (grades 7-10).

N00675 Newsletter "Fuel from Biomass" (grades 7-10).

N00680 Energy Report "Energy Conversion/Efficiency" (grades 7-10).

N00690 Energy Report "Synthetic Natural Gas from Peat" (grades 7-10).

Filmstrips

N00420 Look to the Future...The Gas Company in Your Community (grades 6-9).

N81040 How the Jet Engine Works (grades 5-12).

N81050 Scientists Work Together (grades 5-7).

N81060 Fuel Cells (grades 6-12).

N81070 Flames and Energy (grades 4-6).

N81090 More to Come (grades 4-8).

There are many other activities participated A.G.A. that are relevant to environmental education in the broader sense. Background information on the natural gas industry is provided in a number of formats—pamphlets, booklets, filmstrips, films, reports—for the educational community. Prepared for grade levels K-12, these materials are sent to teachers free upon request. Teachers learn of the materials through advertisements in educational magazines, and exhibits at teacher educational conferences. In some instances, member companies prepare brochures listing the educational aids available to teachers and participate in numerous mutually beneficial ways with schools in their service areas. All of these services are free to teachers. Companies pay the cost for the A.G.A.-prepared materials used by teachers on the basis of use within their service areas.

An independent survey of teacher use of A.G.A. educational materials was done in 1975. This study indicated that teachers were using the materials in their classrooms as supplemental to required curricula and "82 percent of the respondents replied that they would reuse these materials again next year."

Because natural gas does play such a vital role as a source of energy and because it is the least polluting of the fossil fuels which provide the preponderance of U.S. energy needs, the vast majority of A.G.A. programs and activities are related, albeit sometimes tenuously, to environmental education. Since natural gas will remain a major contributor to the fuel energy mixture for the foreseeable future, A.G.A. will undoubtedly continue its efforts to enhance appreciation of the essential role of gas in meeting the nation's energy needs as well as helping to maintain the quality of the environment.

--Submitted by:

Dallas O. Dawson, Manager
Government Relations Coordination Programs

December 1978

AMERICAN INSTITUTE OF ARCHITECTS

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In Troy, New York, a group of elementary students with serious math deficiencies are set to the task of measuring their classroom. Using simplified rulers, they carefully measure every piece of furniture, door, window, and wall before constructing an accurate scale model of the room. Pre- and post-testing shows that computing fractions and converting measurements are now skills rather than obstacles. Indeed, most of them have advanced one or two full grade levels in those areas, as well as having made substantial gains in problem solving, abstract reasoning, and multiplication.

In Cincinnati, Ohio, a junior high music class hears an architect lecture on the basic principles of acoustical design prior to a field trip to the Cincinnati Music Hall. For the first time, they have a clear understanding of the musical consequences of the physical organization of a symphony orchestra.

In Austin, Texas, fifth graders studying government work on "Cities of the Future." The class is divided into four groups. Each group selects a different site (underground, above ground, underwater, or outer space), writes a history of their city relating how it evolved from today's world, and then describes it using an outline derived from their previous analyses of actual cities. After drawing detailed plans, each group builds a large model and makes a formal presentation on their futuristic city to the school's administration.

In Newark, New Jersey, students from Arts High School explore well- and lesser-known sites and lifestyles of the city, recording their findings on film. The results are of such fine quality that the photographs are assembled into a sophisticated publication, Newark, which is distributed to the public by the city government.

What is happening in these classrooms? And beginning to happen all over the United States? These students—and through them their teachers, their parents, and their communities—are experiencing a conscious awareness of their surroundings. They are experiencing Built Environment Education (BEE).

The state of the environment has long been on the public mind. But until recently the focus has been almost exclusively on the natural environment. Efforts to enlighten the public about the built environment have been too few and far between, and often ignored or misunderstood.

Educators have often had a negative feeling about the built environment—viewing it as a force impinging upon and destroying the natural world. However, today educators, parents, civic leaders, decision-makers, architects, builders, are becoming more and more aware of the necessity of

molding the built environment into one which contributes to a better quality of life for those living in it.

What Is BEE?

Someone has said that the built environment is anything we cannot attribute to Mother Nature. In fact, deciding not to build anything on a tract of land is a built environment judgment. Buildings, highways, utility lines, bridges, tunnels, signs, parks, zoning laws, airports, railroad tracks, automobile traffic . . . all contribute to the built environment. The church and its cemetery; the local hospital, its parking lot, and its quiet zone; the city park, its paths, and its fountains; the hamburger stand, its signs, its smells, and its garbage . . . the built environment is everything people have imposed on the natural environment.

How can the relationships, values, esthetic judgments, skills, and knowledge inherent to this complex system be taught effectively? When and where does it fit into our lives?

Environmental education can begin at any age—the earlier the better—and continues throughout life. It seeks to prepare people for their present and future role as users and shapers of the built environment. Education about the built environment stresses, to quote the definition put forth by the Architects-in-Schools program of the National Endowment for the Arts, ". . . the development, first, of an awareness of the surroundings, senses, feelings, and needs; then of an understanding of the functions and the impact of the environment; and finally, of the ability to use the environment and change it to best satisfy the needs that have been defined."

For adults, BEE can be aimed at esthetic appreciation and community participation, while for children its message can be intergrated into existing courses such as social studies, math, science, the arts, and music. Unlike math or social studies, BEE has never been considered a basic of education. Nor has it rated even the nominal time allotted to music or art appreciation. This should not be the case much longer, for today, many groups and individuals are active in bringing BEE to the public and especially to young people.

Architects and BEE

Architecture is only one of the many forces affecting the built environment, but it is one of the most important. Today's architects are concerned with BEE because they are concerned with achieving and preserving quality in the built environment. For this to happen on a meaningful scale in the United States there must be a widespread public expectation and demand for quality in the built environment.

Aware citizens can make better choices. They require buildings designed to a human scale, streets designed for safety, furniture designed to fit the human body, classrooms designed for learning, parks that are restful, and public buildings that express the values of the community.

The built environment is the architect's particular domain. What is built, why it is built, and where it is built are all a part of their responsibility. If as a profession, architects are to make contributions to environmental quality, they must become politically articulate to affect those processes of government that control environmental design.

The architect, in collaboration with the owner, strives to achieve an architecture of consequence. Architecture has a personal, and often dramatic effect on everyone. The architect relies on the public's participation and interest in the design process, for it is that interest which stimulates the architect to achieve work of significance. The public should be an educated participant.

No other art form so completely pervades our daily lives. We live, work, study, and play in and around our buildings. Our surroundings affect our moods and temperaments. Certain buildings, parks, plazas, and streets lift our spirits, while other diminish them. We must all share in influencing our architecture for it will have a lasting effect on us all. Only through a strong and pervasive BEE effort will this happen.

Role of The American Institute of Architects

The American Institute of Architects (AIA) is the national organization of the architectural profession, established in 1857. The AIA fulfills the basic goal of maintaining the ethics, standards, and competence of architects. The following statement from its Bylaws gives clear expression of the ideals of the profession

"The objects of The American Institute of Architects shall be to organize and unite in fellowship the architects of the United States of America; to combine their efforts so as to promote the esthetic, scientific, and practical efficiency of the profession and building industry by advancing the standards of architectural education, training, and practice; to coordinate the building industry and the profession of architecture to insure the advancement of the living standards of our people through their improved environment; and to make the profession of ever-increasing service to society."

Membership in the AIA is open to every architect licensed to practice in the United States. Every prospective AIA member has to satisfy a local chapter with his professional qualifications and willingness to abide by the AIA's Standards of Professional Practice. Currently, the membership of AIA is comprised of approximately 30,000 licensed architects in over 200 local Chapters. The Institute is headquartered in Washington, DC.

Since 1966, the AIA has been involved with BEE—working on the national level to help clarify issues and develop methods and materials for raising the public consciousness on this vital issue. The AIA's BEE program is aimed at providing the general public—and especially school-age children who will become decision-makers as adults—with a better

understanding of the factors which influence the nature of their physical surroundings. The objective of this important program is a thoughtful citizenry, equipped with skills and values, taking reasoned action necessary to shape cities, towns, and countrysides into better places to live; and remaining active in efforts to ensure that they will continue to be better places in the future.

To develop an understanding of our architectural heritage, and to have an influence on its future, we must nurture progressively deeper, more personal involvement with the built environment.

That is why architects, both individually and collectively, have supported BEE and have become deeply involved in BEE as activists. Participation has taken many forms: legislative activists, theorists, consultants, architect/educators, community workshop organizers, and civic speakers.

AIA's commitment to built environment education started with the formation of a Task Force on primary and secondary education. While known variously as the Elementary and Secondary Education Committee, the Public Education Committee and now as the Environmental Education Committee, the principal charge has not changed—"to create an awareness of and concern for the built environment as it relates to the total environment among all students in Elementary and Secondary schools." During the early years, the committee accomplished a good deal:

Creating and Publishing Three Different Guides to Environmental Education Resources and Activities for the use of AIA state and local components and members in influencing individual teachers and school administrators, and in becoming involved in actual classroom activities. The last of these was the highly respected 1970 COPE Guidebook (COPE=Committee on Public Education) which is still sought by architects, teachers and school administrators—even though it is badly out of date.

Influencing the Federal Government. In 1971 and 1972, AIA lobbied actively and testified in support of legislation creating and funding the new Office of Environmental Education in the Department of H.E.W. All of this was an attempt to reinforce the importance of the built environment and to ensure that the staff priorities and funded grants would demonstrate a balanced emphasis on the built environment and the natural environment.

Funded the Development of Important Teaching Resources—including a teacher training and curriculum program created by architect James Pratt of Dallas and the well known "Our Man-Made Environment Book Seven," the excellent hands-on workbook for seventh grade students created by architects Alan Levy and Ricky Wurman of Philadelphia's GEE (Group for Environmental Education!).

In 1972, even with increasing pressure for AIA to develop additional teaching resources, it became apparent that the AIA could not afford to continue to fund the creation of these resources. The next year, the AIA National Convention supported a resolution "to explore the development of learning package programs on environmental awareness for use in educational systems from elementary through college levels and in schools of architecture." In response, a new Committee on Environmental Education, under architect Stephen A. Kliment, researched the "state of the art" in order to "develop an action plan so AIA could become more effective in BEE."

The overall objectives of the committee and the AIA were clearly articulated:

-To create, in students and those who influence students, an awareness of and concern for the built environment as it relates to the total environment.

-To inform them of their eventual role in demanding responsible planning and design in their communities.

-To provide them with the knowledge of alternative approaches as well as the tools, skills and confidence to work actively toward improving the quality of the built environment.

Although these objectives had not changed much over the years, the AIA's efforts followed a new course. The committee shifted its emphasis to that of a catalyst—to work among special national and regional target groups and decision-makers, who in turn would multiply the AIA's effort which eventually will result in a significant increase in the level of awareness and concern among a greater number of teachers, curriculum specialists, and school administrators on the local level.

A seven-point action program for AIA was drawn up by the committee:

A Teacher's Introduction to BEE—not just another teaching resource, this recently developed guide is intended to introduce teachers and curriculum specialists to the need to integrate built environment concerns and interests in normal teaching, and to lead these individuals to more information and resources. The National Council for the Social Studies assisted in promoting and disseminating the guide.

Promotion—a general effort within and outside of the profession, principally through environmental education articles in teacher and general audience periodicals.

An Inventory of Activists—members of the profession involved in environmental education. The inventory was published and disseminated throughout the profession.

Participation—in national environmental education, and in the activities and programs of federal government agencies such as the U.S. Forest Service and, of course, the U.S. Office of Education. The committee is attempting to influence the balance between the built and natural environment emphases that such organizations and their activities demonstrate.

Support Effective State Legislation—cooperate with state components and related groups, seeking legislation establishing official state environmental education divisions, programs and commissions which have a balanced focus on the natural and built environments. Legislative guidelines were recently published and distributed to members of the profession and AIA state components.

A Conference for Deans of Education—who influence teaching of future teachers.

An AIA Awards Program—to recognize outstanding achievements in built environmental education, among individuals inside and outside of the profession, school systems, and other organizations.

Today the 65 member AIA committee, with general staff support from the Institute's Department of Education and Professional Development, has completed several of these goals. In addition, the committee has been credited with these accomplishments:

Environmental Education Teaching Tools—a bibliography of teaching resources with a built environment emphasis, published as an element of the Institute's BEE publication series.

Architects-in-Schools Programs (AIS)—full support for and participation in the National Endowment for the Arts' new program aimed at introducing BEE into the schools by means of placing architects and other selected environmental design professionals in school residencies. The Institute's support for this program extends to the organization selected by the Endowment to administer the AIS—the Philadelphia-based Built Environment Education Center (BEEC), under the direction of Dr. Aase Eriksen. The AIA, together with other organizations, agencies and foundations, has supported the creation and continued existence of BEEC, which shares common environmental education objectives with the AIA.

Workshop Guidebook—how to conduct environmental education workshops involving architects and teachers. This recent publication, funded in part by a grant from the Office of Education of the U.S. Department of H.E.W., outlines ideas for workshops designed to 1) train architects to function as resource people for teachers and students in a school setting, 2) expose teachers to BEE, and 3) provide opportunities for teachers and architects to discover ways of working together in the classroom.

Environmental Education Newsletter—published three times each year, to keep interested members of the profession and other BEE activists abreast of the activities and plans of the AIA Environmental Education Committee.

Future Plans

In 1979, with leadership from Ehrman B. Mitchell Jr., FAIA, the AIA's president for the year, architects throughout the country will participate in "A Celebration of Architecture" to encourage greater public understanding of what architecture is, how it can be enjoyed, and how it comes to be.

As a function of this yearlong commitment to public education, the Institute's environmental education program will grow and expand. For the first time, the AIA Environmental Education Committee enjoys the support of a full-time staff director of environmental education, within the AIA Department of Education and Professional Development. The committee has set these goals for 1979 and beyond:

Active Participation in the Celebration of Architecture--including workshops and activities involving school teachers and young students at the Institute's national convention and other "celebration" events.

Curriculum Guidelines Project—the development of a framework of BEE learning units for use in grades K through 12, organized into progressive sequences in which advanced units expand upon knowledge and skills gained from elementary units. The framework will include suggestions for the comprehensive use of learning units in the full breadth of subject areas usually associated with K through 12 curricula.

Environmental Education National Symposium—to occur in 1980-81, to bring together people already active in environmental education with those in a position to influence educational policy. Participants will be educators and education administrators, deans of schools of education, representatives of environmental groups, and representatives of federal and state agencies and departments which have been or might become involved in environmental education.

Environmental Education in the Community—an expanded AIA focus on the BEE role and responsibility of museums, libraries, community design centers and other entities and organizations in touch with the needs and interests of citizen groups or the general public.

For further information about AIA Environmental Education programs contact: Alan R. Sandler, Director, Environmental Education, The American Institute of Architects.

--Submitted by:

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December 1978

AMERICAN NATURE STUDY SOCIETY

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In 1905 Maurice Bigelow of Teachers College, Columbia University, founded the Nature Study Review, a magazine directed at providing material and a medium of exchange for persons interested in developing a strong program of elementary science in the schools with emphasis on nature study rather than watered-down technical science.

The definition of nature study was broad. Today it would be called either environmental science or ecology. Articles dealt with topics like soils, gardening, chemistry, geology, the sun, astronomy, forestry, in addition to plants and animals and their interrelationships. They emphasized "critical investigation," experiments and observations—process—rather than facts.

Soon subscribers and contributors began to talk about getting together to share ideas, and in 1908 the American Nature Study Society (ANSS) held its first meeting. Liberty Hyde Bailey, the great Cornell botanist and educator, was president. Through the years a list of the presidents sounds like a "Who's Who in Natural History and Outdoor Education," and includes Anna Botsford Comstock, E. L. Palmer, Charles E. Mohr, Eva L. Gordon, Richard Westwood, Richard Weaver, Edwin Way Teale, and Roger Tory Peterson.

Membership includes authors, college professors, grade and high school teachers and anyone else interested in learning about, enjoying, educating about, and protecting the environment. Nature Study Review has been replaced by a variety of magazines. The present one is a quarterly journal entitled Nature Study.

From its inception, the American Nature Study Society has been affiliated with the American Association for the Advancement of Science, and until 1976 held its annual meeting concurrently with AAAS. Since the change in AAAS meeting date presents real problems to ANSS membership, we now meet with regional or other national groups with shared interests and concerns. In 1978 ANSS is meeting with the New England Council of Environmental Education; in 1979 with the Conservation Education Association. ANSS is also a member of the Alliance for Environmental Education, the AAAS Cooperative Committee on the Teaching of Science and Mathematics, and the International Union for the Conservation of Nature and Natural Resources.

In addition to publishing the journal and holding meetings, ANSS conducts summer workshops using streets, school grounds, and park areas as laboratories to provide urban teachers with information, understanding and skills for teaching the environment. ANSS also has a list of members who will serve as lecturers or consultants in their areas.

Information on this is available from Ruth Melvin, Ohio Academy of Science, Columbus, Ohio.

ANSS has published and sells City Critters, a book on a sixth grade and up reading level which provides information on the successful urban animals. This book has an international distribution. ANSS also maintains a traveling exhibit of books written by members which is available to museums, schools, and workshops for the cost of transportation.

ANSS annually recognizes one author of books on children's science literature with the Eva L. Gordon award. Books are judged not only on their accuracy and readability but also on their sense of wonder, their ability to inspire the reader to further participation, and to advance the concept of the interrelatedness of all things on planet Earth.

--Submitted by:

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October 1978

AMERICAN SOCIETY FOR ENVIRONMENTAL EDUCATION

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The American Society for Environmental Education (ASEE) was founded in 1971 at the University of Michigan, to answer the need for a national professional organization for environmental educators at all education levels from primary school to graduate university studies. The ASEE is also committed to out-of-school and adult environmental education programs, and to work actively with the American business community to ensure environmental literacy for all citizens, young and old, and for the nation's working force, both blue and white collar. It is not an advocacy group, but an educational organization presenting all points of view.

A target audience of ASEE efforts has been in-service teachers, elementary and secondary. During the past five years, ASEE has successfully concluded some dozen graduate level environmental education workshops in cooperation with: Governors State University, Illinois; Rutgers University-Cook College, New Jersey; University of Massachusetts, Nantucket Field Station; Colorado Mountain College; Kankakee, Illinois, Public Schools; Danville, Illinois, Public Schools; Aurora, Illinois, Public Schools.

ASEE workshops utilize interdisciplinary instruction, with college faculties plus speakers from the business-industrial community, government, and environmental organizations. Independent evaluations of the workshops, as well as testimonial letters from teachers, have rated each workshop as a great success.

Annual budget for ASEE is approximately $100,000.

ASEE publishes a quarterly Newsletter, plus special publications. Examples include two editions of People, Planet, Progress, a teachers manual in environmental education, and a series of curriculum guides.

Expansion of programs in 1979 will include:

- The Rutgers program, to be repeated, Summer 1979;
- The Nantucket program, to be repeated, Summer 1979;
- The University of New Hampshire, Summer 1979;
- A new Michigan State University program, similar to Rutgers, to be offered Summer 1979;
- A special "Business and the Environment" symposium, to be held at University of New Hampshire, March 1979;

The establishment, in cooperation with Florida Atlantic University at Boca Raton, of an ASEE field station in the Turks and Caicos Islands, British West Indies. This field station will be located on a gift of 108 acres of crown land and will engage in environmental research, particularly the growing of food in the sea.

—Submitted by:

Dr. William L. Mayo
President and Executive Director

October 1978

ASSOCIATION FOR ENVIRONMENTAL AND OUTDOOR EDUCATION

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The Association for Environmental and Outdoor Education (AEOE) is dedicated to the education of children in the ethic of conservation. This organization believes in the potential of education to help children perceive and understand environmental principles and problems.

We encourage carefully-planned and sustained programs of formal and non-formal education. By exploring personal values and providing involvement based on student perceptions, interests, and competence, we seek the development of a personal ethic appropriate to the enhancement of environmental quality.

To this end, we continuously support educators in their quest for the skills, attitudes and materials so essential to help learners know and care about their environment.

The Association for Environmental and Outdoor Education is composed of three separate and distinct incorporated organizations. These are located in Northern California, Southern California and the State of Washington. The names, respectively, are Northern California AEOE, Southern California AEOE and Washington AEOE.

In order to retain mutuality of interests, purpose and common goals among the three groups, an unincorporated national coordinating council of selected members meets to discuss policy and handle public relations and communication on a national level. The principal office for handling correspondence and informational service detailing the environmental education interests and activities of AEOE is located at the address of the coordinating secretary of the coordinating council.

The original organization of AEOE began in Southern California in 1954. At that time it was called the Association for Outdoor Education (AOE). Sections were later established in Northern California, Washington and Alaska. National meetings were held annually to fulfill the purposes of the organization. To assure members that the group did not just represent the outdoor school and camping, the name was changed to include environmental education. The Association for Environmental and Outdoor Education became one of the few organizations specifically designed to broaden the scope of outdoor education to include a multitude of environmental concerns.

More recently, the size of the executive board and the expenses of sending representatives to national meetings became a burden on the budget. The Articles and By-laws were revised to gear down the size

of the national organization, but to continue to maintain the same effectiveness. To give autonomy to the sections and increase their liabilities because of distance and communication problems, it was decided that each organization incorporate separately. The Articles and By-laws would contain the continuity required for the organization, but also the diversity required by each state where filed. If Members-at-Large from another state wish to start a separate group in that state, subject to the approval of the National Coordinating Council, they would only have to adopt and revise the presently used articles and by-laws and incorporate in that state.

From the very beginning of this organization, emphasis has always been placed on showing teachers how to get their children to interpret the environment around them. The levels of involvement, whether national, regional, or local, have always been kindergarten through adult, using the resources of elementary, junior high, high school and colleges, as well as the Forest Service, Park Service and a multitude of other agencies involved in the same endeavor. A list of topic titles found on conference brochures over the years shows the depth of involvement:

Griffith Planetarium and Lazarium
Audubon Bird Walk of Orange County Water District
Oceanography aboard the Fury II
Backpack on Catalina
Recycling Units
Indian Games, Lore, Crafts for the Classroom
Classroom Gardening
Near Shore Marine Life
Techniques for Interpreting "The Out-Of-Doors"
Project Learning Tree
Energy Debate
Energy Hunt
Energy Activities: tracing sources, flow, costs (Idea "Swap Meet")
National and State Issues and Trends in Outdoor Environmental Education
What Outdoor Education Means to Me
The Role of the California State Department of Parks and Recreation in Outdoor Environmental Education
Cold Blooded Creatures, Outward Bound Adventures
Natural Dye and Hand Spinning
Animal Investigation
Pond and Plant Study
Beaver and Animal Pelts, Art work and Wildlife Exhibits
Camp Fire Programming
Blue Heron Marsh Workshop, co-sponsored with Audubon Society
Sun Day Activities
Energy and Man's Environment
Camp Cispus Un-Conference
Edmonds Environmental Education Curriculum Guide
Environmental Problems and Their Modifications
Food Chains and Webs
Living Life's Emergencies
Study of Local Environment through Past History

Human Communications
Project Ecology, Highline Schools
The Classroom as an Environment
"Implementation of Energy Curriculum" (small-group activities by Project USE Team)
Introduction to the Case Study Approach
Showdown on the Salmon River Range
Field Trip to Botanic Gardens at UCR
Nature Study Trip to the Hidden Valley Area of the Santa Ana River
Dana Point Marine Science Laboratory Outing
Environment, Economics and Values for the Future
Futures Game: Energy, Food and You
Forest Service Investigations
Fire Ecology
Bee Keeping
Intertidal Ecology and the Abalone
Using Scuba Diving as an Interpretive Tool
Ecology of the Coast Redwood
Coastal Bluff Ecology and Botany
Pygmy Staircase Ecology Walk
Astronomy at Mt. Palomar

--Submitted by:

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June 1978

BOY SCOUTS OF AMERICA

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Purpose

Founded in 1910, the Boy Scouts of America (BSA) has influenced the lives of more than 60 million youth and adult leaders since its inception. In striving toward its objectives of character building, citizenship training and fitness, both mental and physical, Scouting has emphasized conservation and outdoor activities from the start. Today 3½ million youth and 1¼ million adult Scouters continue to recognize the importance of conservation in nearly every aspect of our lives.

The Boy Scouts of America has three basic programs designed to meet the needs and desires of youth. Cub Scouting is for boys aged 8 to 10 who participate in family and home-centered activities. Boy Scouts are boys aged 11 to 17 who engage in a rigorous outdoor program, advancement, and peer-group leadership. Explorers are young men and women ages 15 to 20, who have realistic opportunities in a contemporary program to explore adultlike roles and vocational opportunities. A Conservation ethic and activities are incorporated into all three segments of the program.

Scouting strives to educate its youth and adult members through three fundamental conservation objectives. All members are encouraged to recognize the importance of our natural resources, to be aware of man's interdependence with the environment, and to develop an attitude of improving conditions.

History

In Scouting's early years, conservation was inculcated into the program by Ernest Thompson Seton and Daniel Carter Beard, who combined their own youth groups with Scouting. Seton wrote the first Scout handbook for the Boy Scouts of America using material from Baden Powell's book, Scouting for Boys, and his own Birchbark Rolls. While there was no concentrated conservation effort in the first several years, individual Scout units did collect litter, plant trees, and engage in insect control. Among the merit badges offered in 1911 were Forestry, Conservation, Ornithology and Stalking.

A growing emphasis on conservation was reflected in the changing requirements for advancement. By 1913, to become a First Class Scout young men were required to identify ten species of trees. In the same year, 51 Scouts earned the Forestry merit badge and 31 earned the Conservation merit badge.

In 1919 the practice of planting and care of Roosevelt Memorial Trees at Oyster Bay was initiated. Victory Gardens in 1918 and 1945 are other examples.

More recently, activities with national impact have been undertaken. The National Conservation Good Turn program began in 1954 at the request of President Eisenhower, combined Scouting's philosophy of "doing a good turn daily" with conservation-related activities. The purpose was to "arouse public recognition of the need for adequate protection and wise management of our soil, water, mineral, forest, grassland and wildlife resources." This call aroused into action more than 3½ million boy and adult members of the BSA. The story of the 1954 National Conservation Good Turn is indeed a highlight of conservation within the Boy Scout Movement.

Scouting's "Outdoor Code" was developed in conjunction with this program:

> As an American, I will do my best to --
>
> Be Clean in My Outdoor Manners—I will treat the outdoors as a heritage to be improved for our greater enjoyment. I will keep my trash and garbage out of America's waters, fields, woods and roadways.
>
> Be Careful With Fire—I will prevent wildfire. I will build my fire in a safe place and be sure it is out before I leave.
>
> Be Considerate in the Outdoors—I will treat public and private property with respect. I will remember that use of the outdoors is a privilege I can lose by abuse.
>
> Be Conservation-Minded—I will learn how to practice good conservation of soil, waters, forests, minerals, grasslands, and wildlife; and I will urge others to do the same. I will use sportsmanlike methods in all my outdoor activities.

Project SOAR (Save Our American Resources) was developed by the Boy Scouts of America in response to a suggestion from the President to undertake a major conservation service in 1971. The objective was to encourage each American citizen to understand and accept a personal responsibility for improving the environment.

More than 57,000 Cub Scout packs and Scout troops and 4300 Explorer Posts participated in a broad program of conservation-oriented activities. More than 1.3 million individuals participated in activities with learning experiences and positive results.

Scouting Keep America Beautiful Day on June 5, 1971 was a highlight of Project SOAR. The overwhelming success of this program led to continuing Project SOAR efforts in succeeding years.

Awards

The Boy Scouts of America offer three major conservation awards.

The William T. Hornaday Award

This conservation-awards program was initiated in 1914 by Dr. William Temple Hornaday, then director of the New York Zoological Park, in an effort to inspire the Boy Scouts of America to work constructively for conservation. It was funded for 20 years through his Permanent Wildlife Protection Fund. Upon his death, the award was sponsored for 35 years by the New York Zoological Society and named, in his honor, the William T. Hornaday Award for Distinguished Service to Conservation, thus appropriately paying tribute to the nation's outstanding pioneer wildlife conservationist. In 1974 the Natural Science for Youth Foundation took over sponsorship of this program.

Since its inception in 1914, this award has been highly prized by those fortunate enough to receive it in recognition of exceptional and unusual service to a very important area of Scouting. For many years it has inspired large numbers of Scouts and their leaders to work constructively for conservation.

The Hornaday award has five forms:

1. Unit Certificate to a pack, patrol, troop, post, or a group of five or more Scouts or Explorers for a unique conservation or environmental quality project.

2. Badge to a Scout or Explorer for outstanding service to conservation or environmental quality within a council.

3. Bronze Medal to a Scout or Explorer for exceptional service to conservation or environmental quality, within a council.

4. Silver Medal to a Scout or Explorer for unusual and distinguished service to conservation or environmental quality on a state or regional basis; not more than six Silver Medals are awarded each year.

5. A Gold Medallion to an adult Scouter or Explorer leader for unusual and distinguished service to conservation or environmental quality on a state, BSA region, or national basis; national impact is emphasized.

The Unit Certificate and the Badge are awarded by the local council. Application is made through the local council. The Bronze Medal is awarded by the national office of the BSA upon the recommendation of the council and the Awards Committee of the Natural Science for Youth Foundation following a review of recommendations and application submitted by a council. This award can only be considered when a qualified Scout or Explorer is nominated by his or her council, and no Scout or Explorer may personally apply. Final selection is made by the Natural Science for Youth Foundation and presentation is made by the council.

The Silver Medal is handled in the same way as the Bronze in regard to recommendation and application. The award is the highest possible attainment for a Scout or Explorer in conservation.

The Gold Medallion may be considered when a qualified Scouter is recommended by his or her council, an established conservation organization, or by any responsible recognized conservationist. This nomination is to be made by the Awards Committee of the Natural Science for Youth Foundation. Upon selection, the nomination must be approved by the national BSA Conservation Committee. The Gold Medallion is the highest possible attainment for a Scouter in conservation. Presentation of the award is limited to one a year.

U.S. Department of Agriculture Council Conservation Awards

The U.S. Department of Agriculture Council Conservation Awards Program was developed in 1960. The basic objective of the program is to stimulate greater general interest in natural resource conservation and application of conservation principles and practices in natural resource use. As stated by the BSA National Conservation Committee, the program provides an incentive to more than 400 councils of the Boy Scouts of America to achieve the following major objectives—that each council have:

1. A professional conservationist in a key volunteer position to serve as adviser to the council on conservation programming and promotion.

2. A long-range conservation plan for each acre of land it owns (councils own more than 400,000 acres of land) and a written schedule for carrying out that plan.

3. A carefully planned program of conservation activities and training for boys in camp.

4. At least one conservation-trained man on camp staff.

5. A year-round program of conservation activities for all boys to work on in their home communities, with adequate trained leadership to guide these activities.

To achieve fully these five major conservation objectives, each council must make effective use of local resource agencies and conservation specialists in planning, programming, applying, and maintaining conservation measures on the land. In addition, sound training of boys in resource conservation must be a continuing program. Such training in conservation values and attitudes is a significant part of Scouting's citizenship training efforts.

In 1962, two years after the USDA Council Conservation Awards Program was initiated, the Secretary of Agriculture proposed to the Chief Scout Executive that the program be expanded to include a national award in

addition to 12 regional awards. As a result, there are now two types of USDA Council Conservation Awards: Green Seal and Gold Seal.

In 1972 the Boy Scouts of America restructured its administrative organization, reducing the number of regions from 12 to 6 and establishing a new organizational level called "Service Area" between regions and councils. To adjust the USDA Council Conservation Awards to the new BSA organizational structure, the Secretary of Agriculture and the Chief Scout Executive agreed that a Green Seal Award would be offered to the winning council in each of the 28 BSA Service Areas and that a Gold Seal Award would continue to be offered each year as top national honor to the one Scout Council that surpassed all others in environmental conservation achievements.

Green Seal Award:

The council award that may be made each year in the 28 Service Areas of the Boy Scouts of America is known as the USDA Green Seal Council Conservation Award. The formal presentation of the Awards is made by a representative of the Secretary of Agriculture, usually a Soil Conservation Service state conservationist or a U.S. Forest Service regional forester, at a time and place designated by the winning Scout Councils.

Selection of Green Seal Award winners is made by BSA officials at the national headquarters. If the conservation accomplishments of councils within a Service Area do not meet the criteria and standards set by the judging committee, no Green Seal Award is given in the Service Area that year.

Gold Seal Award:

Initiated to provide an additional incentive to councils, the Gold Seal Award is given to the one council each year which excels all councils that have won the Green Seal Award. To be eligible for a Gold Seal Council Conservation Award, a council must first win a Green Seal Award.

Presentation of the Gold Seal Award is made by the U.S. Secretary of Agriculture or his representative.

Selection of the national winner of the Gold Seal Award is made by the group of BSA officials who select the Green Seal Award winners.

The first Gold Seal Award was presented to the Philadelphia Council on July 18, 1963. Under-Secretary Charles S. Murphy made the presentation at a ceremony commemorating the 50th anniversary of Scouting on Treasure Island, the oldest Scout Camp in continuous use in the United States.

The record of these awards over the years is certainly evidence of how the conservation efforts of the entire BSA movement is paying off at the level where it is readily apparent to the boys themselves and hence represents an inspiration for better efforts on the part of the individual Scouts.

World Conservation Award

In 1975 the World Conservation Award was developed in cooperation with the World Wildlife Fund and the World Scouting Bureau. The World Conservation Award patch is awarded to Scouts after the Scout council office receives the proper World Conservation Award application. The award is limited to Scouts under 18. The requirements are to:

--Earn the Environment and Conservation skill awards.

--Earn the Environmental Science merit badge.

--Earn either the Soil and Water Conservation or Fish and Wildlife Management merit badges.

--Earn the Citizenship in the World merit badge.

More than 2500 Scouts in the United States earned the World Conservation Award in 1977. An even greater number is expected to earn this award in 1978.

In addition to these awards, advancement recognition is available to both Cub Scouts and Boy Scouts who fulfill specific conservation requirements. In 1977 nearly 53,000 Scouts earned Environmental merit badges. Thousands of others earned Soil and Water Conservation, Fish and Wildlife Management, and Forestry merit badges. A new Energy merit badge pamphlet has just been developed so that Scouts can become acquainted with these conservation needs and recent developments. A dozen more merit badges are indirectly related to conservation. Conservation is woven into many other Cub Scout and Boy Scout advancement opportunities as well.

Training

For many years, the National Council of the Boy Scouts of America has operated conservation training schools at Philmont Scout Ranch, near Cimarron, New Mexico, and at Schiff Scout Reservation, near Mendham, New Jersey, for older Scouts.

Many local councils have followed this lead. The type of learning experiences afforded the quality of the professional educators and the number of boys reached a milestone in the history of conservation.

Conservation education is also offered at national Jamborees, at merit badge clinics and at special events such as the State of Wisconsin Eagle Scout Forestry Camp. The Fifty Miler Award for Scouts who travel 50 miles by foot, on horseback or canoe requires ten hours of conservation along the trail.

Recently, Scout councils have acquainted people with the latest environmental developments by sponsoring Scouting Environmental Country Fairs. Using a country fair format, local and state organizations and agencies are urged to develop exhibits, demonstrations, and audience participation activities covering an array of environmental subjects such as solar energy, ways to save home energy, recycling, pollution control, improving wildlife habitat, bird banding, tree planting, etc.

The Environmental Education Center at the National Headquarters in North Brunswick, New Jersey was established in 1960. A self-guided trail takes visitors by 24 stations that point out various environmental features along a half-mile trail. Since its inception, hundreds of thousands of Scout units, school classes and youth groups have hiked the trail.

Future Thrusts

The Boy Scouts of America are currently developing a new national conservation emphasis to be initiated in the fall of 1981. It is being designed to expose Cub Scouts, Boy Scouts and Explorers to a holistic approach, considering all aspects of conservation and the environment. It will focus on making all of us aware of our responsibility for the future.

References

Boy Scout Handbook
Boys' Life Magazine
Scouting Magazine
BSA Annual Reports
Scout Executive's Monthly
Local Council Exchange
Eagle Scouting Projects
William T. Hornaday Award files
Department of Agriculture Council Conservation Award files
Project SOAR files
Public Relations files
Information Bulletins
Special publications by BSA, such as:

- Ecology Signs
- Ecology Workshop
- Fieldbook
- Guide to Nature Projects
- Conservation Teaching Charts

Philmont files (Ernest Thompson Seton files)
Conservation merit badge pamphlets—Forestry, Fish and Wildlife Management, Soil and Water Conservation, Energy and Environmental Science, as well as Bird Study, Citizenship in the Community, Citizenship in the Nation, Fishing, Geology, Insect Life, Mammals, Nature, Oceanography, Reptile Study and Weather

Energy Conservation—Understanding and Activities for Young People
Soil and Water Conservation Activities for Scouts
Our Outdoor Heritage (a filmstrip/record set; available on loan)
Schiff Scout Reservation Conservation Plan (available on loan)
Conservation Idea Sheets:

- Adult Scouter Conservation Clinic
- Conservation Planning for Scout Camp Properties
- Cub Scout Conservation Activities for Summer
- Energy Gardens
- Energy Merit Badge Clinic
- Environmental Science Merit Badge Clinic
- Fish Derby
- A Guide for Cub Leaders—Conservation Advancement
- The Troop Campsite...Development...Maintenance... Beautification
- Wildlife Habitat Improvement and Other Projects

--Submitted by:

David R. Bates, Associate Director
Camping and Conservation Service

December 1978

CONSERVATION EDUCATION ASSOCIATION

Richard W. Presnell
Secretary-Treasurer, Conservation Education Association
University of Wisconsin-Green Bay
Green Bay WI 54302
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Overview

The Conservation Education Association (CEA) was founded in 1953. Its formation grew out of a number of meetings in the late 1940s of the National Committee on Policies in Conservation Education, sponsored by the Izaak Walton League of America.

Purpose

The major purpose of the CEA is to promote conservation/environmental education at all levels, encompassing all aspects of the natural and man-made world upon which people rely for the development and maintenance of a desirable social, economic, scientific, cultural and political climate. Such learning and teaching are intended to cause understanding and manipulation of environmental factors that will strengthen and maintain a high quality environment.

Interrelationships

CEA has continually sought and successfully achieved common support and cooperation with other national organizations seeking to improve and advance conservation/environmental education opportunities for all people. This has been accomplished by scheduling sessions for and with other national and state organizations at CEA Annual Meetings. Its most significant achievement was the initiation of, and leadership in forming, the Alliance for Environmental Education, Inc. in 1970. The Alliance for Environmental Education membership totals 32 national organizations representing over 15 million individual members.

CEA also joined many other organizations in sponsoring the North American Regional Environmental Education Conference in St. Louis, Fall 1977.

Activities

The CEA sponsors an annual conference in various regions of the United States. The purpose of these meetings is threefold:

1. to learn more about environmental problems and issues of the region and ways they are being addressed;

2. to share successes in addressing such problems through educational means, and

3. to conduct the business of the organization.

Further, the CEA provides its members with services such as: a regular newsletter; packet services (consisting of bibliographies, teaching materials, etc.); audio-visual materials; white papers addressing current environmental problems; and an annual report including digests of papers given at the annual conference.

Leadership

The CEA worked energetically in accomplishing the passage of the National Environmental Education Act (P.L. 91-516). Members have served the U.S. Office of Environmental Education as advisors and as reviewers of general programs and grants programs. Several states have benefitted in establishing conservation/environmental education programs by utilizing CEA member expertise and materials published by it. As mentioned earlier, CEA leadership led to the formation of the Alliance for Environmental Education, Inc.

Future

CEA intends to remain practical and applied in its orientation in order to best serve its members. However, it is always open and sensitive to the needs of people to learn and know about their environment in order to make the best resource utilization decisions possible.

--Submitted by:

Richard J. Myshak
President

July 1978

EDISON ELECTRIC INSTITUTE

Educational Services
1111 19th Street, NW
Washington DC 20036 (address as of July 1, 1979)
(202) 862-3800

Edison Electric Institute (EEI) is the principal association of America's investor-owned electric companies. Its purposes are to help electric companies generate and distribute electric energy at the lowest prices possible consistent with safe and reliable service and the interests of consumers, employers, and shareholders; advance the art of producing, transmitting, and distributing electricity, including promoting scientific research to meet people's needs and to help the nation achieve employment, economic and environmental goals; and gather and make available factual information, data, and statistics of importance to consumers and the electric industry.

The goal of the Institute's Educational Services is to provide programs and services to aid member companies in improving their communications with educators and students about the role of electric energy in our society. The programs and services are developed on the assumption that, among other things, today's students and adults need to know about the conservation of energy resources, the environmental impact of energy conversions, and the need for energy in achieving environmental improvement.

The major portion of the work in educational services and relations is carried out by EEI member companies at local and regional levels. The Institute's Coordinator of Educational Services addresses national educational issues and the Institute provides support and promotion of national educational conferences and institutes dealing with energy, economics, and the environment.

Edison Electric Institute has been involved in some aspects of environment education since 1973 when it sponsored the development of The Energy-Environment Game, an instructional simulation designed for use in grades seven through twelve.

The educational materials are developed for various grade levels from kindergarten through the university level. EEI's developmental process begins with determining teachers' needs, followed by treatment of the concept by an independent agency, development of a prototype unit, classroom testing, refinement of the materials, reproduction of units in quantity, and an evaluation of teacher opinions of the materials following classroom use.

A list of current educational services materials is below. Some electric companies provide these materials free to educators in their service areas on request. Where this is not the case, the

materials may be purchased from EEI by educational institutions for the prices indicated.

	Recommended Grade Level	Price Per Unit Educational Institutions
1. Electricity Serves Our Community EEI Publication No. 74-56 A cardboard model of an electric power system for bulletin board display. Contains: 17 cardboard cutouts in full color and suggestions to the teacher.	4-6	$ 3.00*
2. Our Energy-Based Economy EEI Publication No. 74-54 A multimedia kit which explains the basic principles of economics and the relationship of energy supply to the free-market system. Contains: Teacher Guide, four filmstrips with records, activity sheets and outgrowth activities.	5-8	$30.00*
3. Electrical Safety In and Around The Home EEI Publication No. 76-18 A multimedia kit on electrical safety practices. Contains: Two filmstrips, two cassettes, five activity sheets, game poster, 60 stickers and Teacher Guide	5-7	$25.00*
4. Energy-Now and in the Future EEI Publication No. 77-4 A multimedia kit which explores alternate energy sources and provides a realistic appraisal of their chances of significantly supplying our energy needs. Contains: Teacher Guide, six filmstrips, six cassettes and 12 activity sheets.	6-9	$30.00*
5. Food And Energy EEI Publication No. 78-39 A multimedia kit. The subject matter and treatment cover a number of areas related to language arts, social studies and science. Contains: Teacher Guide, two filmstrips, two cassettes, six activity sheets and a wall poster.	4-6	$20.00*

*Quantity discount prices available on request. Prices include shipping by EEI's choice of the most economical method.

	Recommended Grade Level	Price Per Unit Educational Institutions
Recommended by EEI and available from: Spartan Graphics, 228 South State Street, Sparta, Michigan 49345:		
6. A Powerful Friend A multimedia kit which explains power, energy, environmental quality and the wise use of electricity. Contains: Teacher Guide, four filmstrips, cassette, activity sheets	K-3	$20.00
7. Electricity and Me-And Energy Conservation A multimedia kit on the generation, transmission, distribution, end use, costs and wise use of electricity. Contains: Teacher Guide, 11 filmstrips with cassettes or records and activity sheets	6-9	$40.00

--Submitted by:

Richard B. Scheetz, Coordinator
Educational Services

December 1978

FORESTA INSTITUTE FOR OCEAN AND MOUNTAIN STUDIES

8205 Franktown Road
Carson City NV 89701
(702) 882-6361

Foresta Institute is located in rural Washoe Valley, Nevada. The institute has operated since 1958 as an education and research center focusing on land use and wildlife research as well as environmental education. Foresta's current priority is understanding the cultural and ecological system of our globe and sharing that understanding through our education programs. Foresta Institute's involvement with environmental education is an expression of the Institute's basic working philosophy of bringing people to recognize and live within the resources and tolerances of their environment while promoting a quality existence for all life. The education program, working in partnership with the institute's research, facilitates our purpose of educating an environmentally literate citizenry that shares a vision of a global community of individuals living in harmony with the earth's ecosystems and with one another.

Foresta's environmental education involvement includes working with the community, the public school system, professionals in the field of education, and university and college students. On a local and regional level, we work with public schools and the adult community. Nationally, we participate in dissemination of information, theoretical refinement of the field of environmental education, and some environmental advocacy. Foresta's environmental education internship draws students from all over the nation and of all ages for field training at the Institute, as well as teachers from Nevada and California schools. Internationally, Foresta is a registered non-governmental organization of the United Nations. Foresta has participated in the United Nations Environmental Programme, UNESCO, and IUCN (International Union for the Conservation of Nature and Natural Resources). Another international activity is the Latin American Natural Areas Program (LANAP).

Foresta's education program goal is to educate people to understand how biological and cultural systems and the interaction between these systems function, and to develop people's understanding of the potential outcome of human manipulation of natural systems. Inherent in this goal is to develop adults who possess a holistic view of the world. The Institute's major objective is to infuse an approach into the present formal education system which interrelates all academic disciplines and which incorporates system concepts as links between the working principles of an interrelated universe. The system concepts we utilize are diversity, interdependence and interaction, adaptation and change.

Included in Foresta's educational objectives are a number of working goals. These are the individual development of problem-solving skills,

a consistent dynamic values system, a strong sense of self and self-competence, and an expanded reality base. Ideally, people who understand the ways in which biological/cultural systems operate can perceive and understand dysfunction in the system. With this understanding, people are more likely to make decisions, as citizens, that will perpetuate healthy functioning of the systems which make up all of the global environments.

Foresta's working philosophy is that environmental education serves as a process occurring throughout all academic disciplines, integrating and linking. Metaphorically, we view environmental education as a web upon which subject-oriented information can be hung. We base our educational practice upon experience, utilizing basic academic skills as tools of learning. The "web" of which we speak is constructed of the basic system concepts generic to the processes occurring in natural and cultural systems and interaction therein. Consequently, a primary objective of the Foresta program is to refocus the education process so that the environmental education conceptual scheme is infused into all curriculum.

Foresta's past reflects a variety of changes and priorities within this common theme of people learning how to live in harmony with the earth. Foresta has viewed this education program as an ongoing, ever-changing process, taking the energies of the staff where the greatest needs exist and also letting go of projects when the endeavor has been adopted by other societal institutions.

In its earlier years, Foresta's activity centered primarily around wildlife research, ecological land appraisal and professional seminars. The Institute then began work in environmental advocacy as well as ethnological research focusing on local native tribes. In 1970, Foresta conducted a seminar entitled The International Working Meeting on Environmental Education in the School Curriculum. From that meeting, Foresta began to work intensely in the field of education on an international level, as well as regional and local. Work with endangered wildlife, particularly animals and further Paiute ethnological studies also continued.

In the past ten years, Foresta's purview has matured into a united scope of diverse activity rooted in educational reform and advocacy for planetary care. Currently, the Institute is involved in a number of programs. These include The Public Schools Program which trains college level students to work within Foresta's environmental education scheme with Nevada and California public school students. We also do in-service environmental education workshops for teachers. The "Tinker Truck" is a mobile program which carries an interdisciplinary program in environmental education to the isolated rural schools of Nevada. It serves students, teachers, and community groups. Foresta sponsors community education seminars, one or two-day workshops addressing local issues for community leaders and the general public. We also offer consulting services to public schools, youth groups, and adult groups. This includes the Girl Scouts, school districts, etc.

As a result of our interest in the interrelationship between people and the land as manifested in cultural systems, Foresta is involved in the Nevada Community Folklife Project. Foresta is sponsoring the project

with the Smithsonian Institution to survey Nevada folklife—the ethnic traditions, vocational and material culture, music and dance, oral tradition, art forms and the special flavor of Nevada's heritage. Presentation festivals will be given in four Nevada communities and will be documented. Education packets are being developed from this work in community folklife.

Among other educational activities are:

> Washoe Pines Camp--a five-week summer program for youth which serves as our seedbed for educational ideas. It is a total Western experience. The program includes a scholarship project for low-income students;
>
> Western Studies Trek—a traveling four-week interdisciplinary study of Northern Nevada and California for teens;
>
> Pacific Northwest Expedition—a four-week interdisciplinary study of the northwestern United States.

Foresta's Environmental Studies Library includes 5500 volumes dealing with sciences, western history, environmental issues and ethnology; an environmental education resource center; a herbarium, mammal and bird specimens, and a large pamphlet and periodical section. The library is open to use by the public at large, and to groups and organizations.

We are currently preparing for publication an ever-growing set of activity cards which share environmental education activities developed by Foresta staff for a wide range of age groups with which we have worked. We produce intermittent newsletters. We have a Foresta Institute publication list available which accounts for 20 years of publications ranging from technical papers to bibliographies on our library's special interest holdings, such as whales, desert ecology, etc.

Some of our future plans, contingent upon funding, are to produce learning units on whales, possibly all Cetaceans, for the formal and informal education setting and another on wild horses and burros. We are also planning to work on folklife studies as a vehicle for involving people in understanding their relationship to their land. We anticipate adapting the acclaimed Foxfire program to this region as well. Additionally, after working with a Title IV-C program in the Huntington Beach Union high School District in California, Foresta would like to disseminate the community educational laboratory idea to more schools. The community educational laboratory is an environmental education program which utilizes the community as a learning laboratory for secondary students.

Foresta Institute has always been intended as an agent of change, on the forefront of promoting new views. Consequently, the Institute is in constant, healthy struggle for funding. Although in earlier years support came from founding sources, Foresta must now seek support from a wide variety of sources. Because Foresta's staff and board equate success with risks taken while still remaining afloat as an institution, the Institute experiences success and failure equally intensely. The successes of which we are most proud and which are most consistent are

in training pre-professionals and professionals in the environmental education process, and the opportunities we have provided to third world students who participate in Foresta programs.

--Submitted by:

Marla Painter

June 1978

GIRL SCOUTS OF THE U.S.A.

830 Third Avenue
New York NY 10022
(212) 940-7500

Girl Scouts of the U.S.A. (GSUSA) is a corporation chartered by the United States Congress. It provides Girl Scouting to 2.5 million girls served by the 347 chartered Girl Scout Councils, ranging in area from part of one metropolitan city to an entire state. Councils organize troops and operate camps where girls enjoy the fun and learning of the Girl Scout program, and recruit adult volunteers, encouraging them to work together and to use community resources for the benefit of youth. Thus, Girl Scouting is one of the nation's most extensive programs of adult education as well as its largest organization for girls. Girl Scouts of the U.S.A. belongs to the World Association of Girl Guides and Girl Scouts, which has member associations in 99 nations. This worldwide sisterhood broadens Girl Scout opportunities for understanding and friendship with girls of other countries.

The organization is dedicated to the purpose of inspiring girls with the highest ideals of character, conduct, patriotism and service that they may become happy and resourceful citizens. The Girl Scout movement is open to all girls and adults who accept the Girl Scout Promise and Law.

THE GIRL SCOUT PROMISE

On my honor, I will try:

To serve God,
My country and mankind,
And to live by the Girl Scout Law.

THE GIRL SCOUT LAW

I will do my best:

to be honest
to be fair
to help where I am needed
to be cheerful
to be friendly and considerate
to be a sister to every Girl Scout
to respect authority
to use resources wisely
to protect and improve the world around me
to show respect for myself and others through my words and actions.

Gloria Scott, Past President of Girl Scouts of the U.S.A., has said, "Girl Scouting from its inception has made it possible for girls to experience the freedom and joy of being in the out-of-doors. As we move toward the 21st century, and acknowledge the environmental crisis, we have a new sense of responsibility. It is imperative that Girl Scouting renews its commitment to girls and affirms that: Inherent in the Girl Scout program is every girl's right to know, enjoy, appreciate, and preserve the natural environment. Inherent in the purpose of Girl Scouting is our obligation to help each girl understand environmental relationships and her responsibility to develop appropriate attitudes and lifestyles to support them."

The National Youth Conference on Natural Beauty and Conservation was held in Washington, DC in 1960 at the suggestion of the Girl Scout National Board Member attending the White House Conference on Natural Beauty. Over 500 young people representing the U.S.A. and Canada attended; over 57 of these were Senior Girl Scouts, including the co-chairman of the event. The purpose was to discuss the role of youth as change agents and to develop guidelines for youth actions for conservation and beautification. Participants committed themselves to designing and carrying out projects in their own communities. An evaluation of the conference and a report, Youth Power (out of print), describing these grass roots actions produced as the result of the event, were distributed by GSUSA.

In July, 1966 Senior Girl Scouts from 25 states took part in the Rockwood Trails Conference held at Rockwood Girl Scout National Center near Washington, DC. Working closely with consultants from government and the private sector, girls assessed the program possibilities of the Rockwood site and initiated projects to be carried out by visiting troops. Linked with this focus was extensive training in trail construction, trail development and management, plus skills in planning and organizing community action.

Although Girl Scouts have always been taught to be observant of nature and been involved in conservation efforts, Earth Day in 1970 reawakened a large-scale involvement in community environmental action.

The Girl Scout call to action is called Eco-Action. One month brought 1700 entries to a patch design contest. Suggested for troops were activities that would build a stronger awareness of the interrelationships and interdependence in the environment and projects that would enable girls to gain facts and understandings needed to make responsible decisions. But projects are those decided upon by girls—those they wish to undertake.

Through girl action:

-a gully used as a dump was transformed into an arboretum;
-trees planted in a mining camp provided a windbreak and psychological "roots" for the new community;
-girls have developed canoe and hiking trails, playgrounds, trails for the blind and multi-handicapped;
-girls cleaned up a 27-mile stretch of a Michigan river;

-a Cadette troop in New Jersey made headlines in Life magazine by organizing a cleanup of the Hackensack River which removed 60 truckloads of debris from seven miles of river;
-girls have established recycling centers, boardwalks through bogs, helped to reforest a new state park; and
-girls have developed a nature area and marina for teaching safe boating and bird watching.

In 1944 the Girl Scouts of the U.S.A. established Lou Henry Hoover Memorials in recognition of Mrs. Herbert Hoover's love of living things and her lifetime work toward the conservation of natural resources. The establishment of a Memorial requires that young people have a major responsibility for the analysis, planning, development and management of a piece of land set aside as an outdoor environmental learning place. Forty-five of these sanctuaries have now been established across the country. An award-winning filmstrip, A Place Apart, describing the process used by one council in setting up a Memorial, is available.

In the summer of 1972, a group of 80—boys, girls and adults—from Girl Scout Councils in 18 states participated in a conference on "Quality Living Through Ecological Understanding." Held at the University of Wisconsin-Green Bay Campus, each team came to learn about the major problems facing man in his environment, and went home with an action plan to improve conditions in their own communities. Entitled Blueprints for Action, the results of the conference were published under a grant from the Office of Environmental Education of HEW.

A second grant brought the production of the filmstrip series, It's All Yours, designed to move the energy and enthusiasm of youth and adults to involvement in community environmental action projects. The filmstrips show how, joined together, people can build a trail that walks away from congestion and into serenity. They can plan a community playground to make an isolated neighborhood literally swing with spirit. They can renovate an old building and rub elbows with their past. They can plant a flower garden to add color to the grayness of a city. The hows and whys of planning, action and problem-solving are highlighted.

In 1974-75, the Girl Scouts of the U.S.A. sponsored three Wildlife Values Workshops in New York, Kansas and Texas, which taught:

-girls and adults about wildlife in their communities, camps and nearby wildlife refuges;
-how to set up wildlife programs for troops and camps;
-the necessity of protecting endangered species.

Local councils throughout the country have developed their own Eco-Action programs.

The Girl Scouts of Greater Philadelphia started a program called Earthcare to help girls understand that they are an inseparable part of the system and interaction of our culture and natural environment. Topics of concern included individual and society's needs for survival, and the quality of life for the whole earth.

In the summer of 1975, 112 high school-aged girls gathered in Philadelphia to study the problems of pollution control, city planning, interactions of political factions, and the workings of government, through a computer-simulated city planning game. They found that critical thinking was the skill most needing development for their involvement in environmental decision-making.

In the Bicentennial Summer of 1976, an Intercontinental Congress of Girl Scouts gathered in Philadelphia. Three hundred girl delegates elected from U.S. councils joined 200 girls from countries abroad. Topics of discussion included the food crisis, pollution, energy problems, and the interactions of decisions.

The San Francisco Bay Girl Scout Council has been involved with the Lawrence Hall of Science of the University of California in the development of Outdoor Biology Instructional Strategies (OBIS).

A Tennessee council, in cooperation with the U.S. Forest Service, has trained Girl Scout leaders and teachers in local schools.

The Girl Scouts of Bergen County, New Jersey, have an environmental awareness program called Eco-Alert, emphasizing sensory awareness, interrelationships, and man as the cause of environmental degradation.

The Flint River Council in Georgia has held "Eco Days" at camp, where thousands of girls have attended sessions on soil conservation, wildlife management, and conservation of resources at home. They have planted trees, shrubs, and grasses on the campsite with dramatic impact on bird and wildlife populations.

Since 1964, the Reader's Digest Foundation has provided grants of up to $500 to older Girl Scout groups which wish to embark on worthwhile community service projects. Many of these projects have involved creation of trails, beautification, and parks improvement projects. These service projects give young people a chance to show what they can do—from initial planning, to financing, to implementation, to serving their communities.

In 1977 the new Girl Scout Handbook was introduced with an increased stress on environmental awareness. Through a federal grant, From Dreams to Reality career exploration materials are being introduced to help girls explore the variety of opportunities available to them, including those with environmental concerns. Three Girl Scout magazines provide a continuing flow of program ideas to leaders and girls for involvement with wildlife, outdoor and environmental projects.

In 1977 the organization also launched the Elliott Wildlife Values Project with the purpose of developing a national program to increase members' understanding of the need to preserve the diminishing stock of wildlife. Financed by a trust fund established by the late Herford N. Elliott, the project seeks to help girls become more aware of the interdependence of all forms of life, to assist them in discovering how human lifestyles, values, and actions affect wildlife, and to guide them in developing appropriate attitudes and lifestyles

to support wildlife. The project funds have supported the development of new materials incorporated in the Outdoor Education Packet, 1977, training experiences for more than 300 adults and girls, participation in a whale symposium and environmental education conferences, preparation of the television show Girl Scouting and the Wild Kingdom, and design of an exhibit room dedicated to wildlife understanding at Girl Scout National Center West in Wyoming.

For additional information and catalog of available publications contact:

Program Department
Girl Scouts of the U.S.A.
830 Third Avenue
New York NY 10022

--Submitted by:

Carolyn L. Kennedy
Wildlife Project Director

September 1978

HUMANE SOCIETY OF THE UNITED STATES

2100 L Street, NW
Washington DC 20037
(202) 452-1100

The Humane Society of the United States (HSUS) is a charitable, tax exempt national animal welfare organization with headquarters in Washington, DC, regional field offices, a state branch in New Jersey, and an education center in Connecticut.

The Society was incorporated on November 22, 1954 for the prevention of cruelty to animals. From its inception the Society has carried forward animal welfare programs designed to stop the pain and suffering many animals endure in a wide variety of circumstances.

The HSUS is active in virtually every area of animal protection, fostering the humane ethic and philosophy through educational, legislative, investigative, and legal channels. HSUS major goals include:

-Reducing the overbreeding of cats and dogs;
-Opposing sports hunting and trapping;
-Educating people to respect all living things;
-Eliminating animal abuse in entertainment;
-Correcting inhumane conditions in zoos and other exhibitions;
-Stopping cruelty in handling and transporting food animals;
-Providing technical assistance to local animal welfare groups;
-Ending cruelty in biomedical research and testing;
-Strengthening anti-cruelty laws and their enforcement;
-Extending animal protection into areas where there is none;
-Monitoring federal laws to protect animals.

Through its educational division, The National Association for the Advancement of Humane Education (NAAHE), headquartered at the Norma Terris Humane Education Center in East Haddam, CT, HSUS develops and conducts environmental education workshops and materials for educators as part of its overall programming. The programs are conducted at local, state and national levels.

The workshops are "tailored" to meet the needs of educators. Examples of workshop topics include "Helping Children's Senses Make Sense Outdoors" (four-season, multi-sensory nature investigation activities), "Debunking Myths About Various Beasties," "Producing Nature-Related Slide Sound Programs," "Animal-Related Careers," "Methods and Materials for Environmental Education," and "Attracting Wildlife to School Grounds or Back Yards."

Participants generally include elementary and secondary teachers, animal welfare organization educators, college students, nature center educators, and school administrators.

Materials produced and distributed through NAAHE include filmstrip programs, slide-sound programs, posters, flannel board kits, and cassette tapes. Materials are developed using an interdisciplinary approach.

Humane Education, a quarterly teachers' magazine published by NAAHE, offers a variety of articles and features in each issue which provide background and information for environmental studies. Examples include: "Cry Wolf—an Ecology Values Study," "The Quality of Mercy Can Be Strained" (caring for injured or ophaned wildlife), "MacDonald's Farm Revisited," "You Can Drown A Frog" (a play), and "The Ecology of Stray Dogs and Cats." Many environmental films, filmstrips, and other media materials useful for environmental education are reviewed as part of each issue.

During the last few years, NAAHE has expanded its programs to cooperate with nature centers, zoos, and school environmental education projects on workshop activities.

Although it does not have a separate budget specifically earmarked for environmental education, approximately 30 percent of the total programming focuses directly on environmental education.

NAAHE maintains a 30-acre nature trail model at its headquarters in East Haddam. The trail is used as part of workshop programming. In the summer, school and community groups are led on interpretive tours by college student interns.

The NAAHE staff recognizes that humane education is an integral facet of environmental education, as it brings the areas of values education and values clarification into classroom and outdoor studies.

Future plans call for additional programs and materials to be developed for use in environmental education programs. Because the principles of ecology apply equally to stray animals in urban or suburban situations, emphasis on domestic animals as an environmental concern will be emphasized. A humane education curriculum guide which focuses on wild, domestic, and farm animals as well as people/animal relationships is being produced. Environmental studies "tie-ins" will be included.

Educators may request sample publications by contacting NAAHE headquarters.

--Submitted by:

John Joseph Dommers, Director
The National Association for the Advancement of Humane Education
The Norma Terris Humane Education Center
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December 1978

INTERNATIONAL COUNCIL ON HEALTH, PHYSICAL EDUCATION, AND RECREATION

1201 Sixteenth Street, NW
Washington DC 20036
(202) 833-5499

The International Council on Health, Physical Education, and Recreation (ICHPER) is an international organization with members in 107 countries. Its international character is reflected by the nationalities of its officers, who are currently from Belgium, England, United Arab Republic, Japan, Australia, United States, Brazil, and the Netherlands. International headquarters is in Washington, DC.

ICHPER serves to bring together teachers, administrators, leaders, national departments of physical education, and related professional associations concerned with health, physical education, sports and recreation into one organization, and represents their concerns at the international level. Through the strengthening of professional ties among colleagues and departments, as well as associations, from all continents, ICHPER fosters international understanding and goodwill, and encourages the development and expansion of educationally sound programs in these fields in all countries.

ICHPER collaborates at an international level with national and international organizations for health, physical education, sports, recreation, and education; with national departments of physical education and sports; with schools, institutes, and universities; with related international agencies such as FAO, WHO, UNESCO and UNICEF, and with interested colleagues and individuals throughout the world.

ICHPER was organized at the 1958 meeting of the World Confederation of Organizations of the Teaching Profession in Rome, Italy, and sponsors annual international meetings each year. For example, the 22nd annual Congress is scheduled for Kiel, Federal Republic of Germany, July 23-28, 1979, with the general theme, "Movement, Health, and Recreation Through Physical Activity."

ICHPER produces the following publications:

The ICHPER International Journal of Physical Education (formerly Gymnasium), a quarterly journal presenting topical articles by noted authors and experts in the field;

The ICHPER Bulletin, an occasional newsletter reporting meetings, projects, official business and special events; and

ICHPER Congress Proceedings, featuring speeches and highlights of international meetings.

ICHPER has not been particularly active in environmental education, but does plan to continue its interests and support as environmental education relates to health, physical education, and recreation. In its 1975 Congress, held in Rotterdam, The Netherlands, ICHPER included a program devoted to environmental education. Since that time, ICHPER has emphasized environmental education as part of its specialized interest area, Outdoor Education.

ICHPER maintains an interest in environmental education, and has followed with interest the UNESCO Intergovernmental Conference (October 1977, in Tbilisi, USSR), but has not been able to devote specific effort to environmental education. Future work is anticipated in this field of interest.

--Submitted by:

Carl A. Troester, Jr.
Secretary General

October 1978

IZAAK WALTON LEAGUE OF AMERICA

Suite 806
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Arlington VA 22209
(703) 528-1818

The Izaak Walton League of America (IWLA), founded in 1922 by 54 fishermen and named after the famous English author and outdoor philosopher, is a national citizen-conservation organization composed of community chapters, state divisions, and members-at-large working for the wise use and conservation of America's natural resources and for the restoration and maintenance of a high quality environment. This League is incorporated as a non-profit, nonpartisan organization. Its membership is approximately 53,000.

IWLA identifies a broad agenda:

1. Preservation of the American landscape;
2. Campaigning for clean air and water;
3. Improvement of hunting and fishing;
4. Protection of endangered species;
5. Promotion of environmental education;
6. Enforcement of environmental laws;
7. Expansion of outdoor recreation opportunities.

Among its several activities, IWLA publishes Outdoor America, a bimonthly magazine of particular interest to sportsmen and conservationists. It "is published to report what is being said and done in the environmental field and to provide a forum for intelligent exchange among its readers."

In addition, IWLA sponsors an annual convention. The 56th National Convention, held in July 1978 at French Lick, Indiana, had as its theme "Conservation—A United Effort," and included conservation displays by resource management agencies, an exhibit of the photography of Gene Stratton Porter, and a panel discussion featuring officers of IWLA, the Sierra Club, the Nature Conservancy, the Environmental Policy Center, and the National Audubon Society which was organized to better inform conference attendees of the cooperation—and the continued need for it—among the country's prominent and environmental organizations.

Among target areas of IWLA activity are:

Pollution Control: IWLA has spearheaded America's fight against dirty water. The IWLA is closely identified with national and state clean air and water laws, waste treatment construction financing, and the "Save Our Streams" program.

Water Policy: Currently a leader in the drive toward an intelligent national water policy, IWLA has long spoken out against environmentally destructive projects such as the Cross Florida Barge Canal, Garrison Diversion, Cache River Channelization, Salem Church Dam, and others.

Land Preservation: IWLA has won protection for critical forest and recreation areas, national parks, wilderness regions, and wild rivers across the nation. The list includes: Redwood National Park, Cumberland Island, Boundary Waters Canoe Area, Jackson Hole Elk Refuge, Mount Rogers, Canyonlands, New River, and the Indiana Dunes National Lakeshore.

Outdoor Recreation: A League idea of the 1950s led to today's national outdoor recreation program, including the Bureau of Outdoor Recreation (now the Heritage Conservation and Recreation Service) and Land and Water Conservation Fund financial support.

Resource Conservation: IWLA has been involved in efforts to control the abuses of strip mining, protect national forests from damaging clear-cutting, assume stewardship over public lands, and promote energy conservation and reuse and recycling of society's products.

Wildlife: League work to enhance fish and wildlife habitat has included strong support for the National Wildlife Refuge System, conserving dwindling runs of salmon and steelhead, and protection for endangered species.

Of particular interest currently are two IWLA efforts:

"Save Our Streams—Adopt One," a national educational and citizen participation program which encourages local groups to work actively in the preservation, maintenance, and/or restoration of local streams, then provides support in terms of "how to" materials, including a special quarterly SOS publication, Splash. Thousands of miles of streams are currently enrolled in the program, often with substantive results.

Increasing public awareness of sewage sludge as an environmental problem, sponsored by IWLA with funding by U.S. EPA's Office of Solid Waste, which "attempts to correct public misconceptions about the characteristics of municipal sludge and stimulate public involvement in local sludge management decisions." The one-year program permits the League to sponsor a series of public workshops in several states facing critical sludge disposal problems.

Coordinator of both of the above programs is Bob Axelrad.

--Submitted by:

Kathy Barton
Environmental Affairs Specialist

LEAGUE OF WOMEN VOTERS OF THE UNITED STATES

Education Fund
1730 M Street, NW
Washington DC 20036
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The League of Women Voters Education Fund (LWVEF), a 501(c)(3) organization, was established in 1957 by the League of Women Voters of the United States as a public foundation dedicated to strengthening citizen knowledge of and involvement in representative government.

Through its timely, objective and carefully researched publications on a wide variety of subjects, the League of Women Voters Education Fund offers the general public and the 131,000 League members in 50 state and 1350 local leagues across the country the solid, factual data they need for decision making.

The LWVEF brings community leaders together, in formal and informal sessions, to discuss and share points of view on important national issues. Through both publications and training sessions, the LWVEF helps these leaders to develop the skills they need to be more effective partners in the democratic process.

Through its litigation project, the LWVEF helps to clarify the law in the public interest. (The litigation project, however, does not litigate in the area of environmental issues.)

In addition, the Education Fund aids state and local leagues in conducting educational meetings and other educational activities for legislators and the general public. Some of the areas related to natural resources education where the LWVEF is working include clean air and water, solid waste and toxic substances management, land use planning and energy. (The LWVEF also works in non-environmental public policy areas including equal opportunity in employment, housing and education, the urban crisis, international relations and government.)

Education Fund publications are even-handed, comprehensive and diverse. They run the gamut from guides on how to get things done to basic information pamphlets on national issues.

The League of Women Voters Education Fund is headed by a chairman and board of trustees—all volunteers selected from the ranks of League members. The Chair of the LWVEF, Ruth J. Hinerfeld, is also President of the League of Women Voters of the U.S. The LWVEF is served by a professional and support staff of 35 persons. It shares Washington offices with the League of Women Voters of the U.S.

Funding for the LWVEF comes from a variety of sources—contributions, restricted grants, and sale of its publications.

LWVEF Grant Assisted Projects

Although the LWVEF reaches and serves the general public directly through a variety of programs, publications and projects, active League members willing to participate in LWVEF educational projects are an important resource. The presence in all states of workers well organized and experienced at the state level—women and men acquainted with state-wide organizations, state agencies, and state legislatures—is one of the LWVEF's most substantial assets. The 1350 local leagues supply local leaders, acquainted with the needs, resources, and power structure of their communities. Coordinated by the LWVEF and utilizing information and techniques acquired through the LWVEF, these state and local leaders extend the outreach and enlarge the ripple effect of LWVEF projects.

Throughout the last ten years the LWVEF has been engaged almost continuously in supervising environmental projects funded through federal grants, or contracts, or through corporate grants. For example, from 1965 to 1974 the LWVEF conducted a successful series of water seminars built around river and lake basin problems and financed by the U.S. Public Health Service, the Department of Interior's water pollution control agency (FWPA and FWQA), and the U.S. EPA. From 1969 to 1972 the Environmental Quality Department of the LWVEF and its Committee on Environmental Programs and Projects also carried on two air pollution education projects: the first funded by HEW's National Air Pollution Control Administration (NAPCA), the second by a contract begun with NAPCA and concluded with EPA.

During 1976-77 the EPA Office of Water Supply funded a LWVEF Safe Drinking Water Project. Since 1976 the LWVEF has been educating citizens on the impact of Section 208 of the Clean Water Act with grants from EPA. Other grants from EPA's Office of Solid Waste Management Programs have funded LWVEF projects on solid waste issues since 1972.

A grant from the U.S. Department of Commerce's Office of Coastal Zone Management in 1977 and 1978 funded educational activities in 30 states, Puerto Rico and the Virgin Islands about their coastal resources.

Corporate contributions have facilitated LWVEF environmental education activities not specifically funded by the restricted grants, such as local and state league participation in regional environmental conferences and publications on the interrelationship of various environmental issues. Foundation grants have a similar benefit. A grant from the Rockefeller Brothers Foundation for example permitted the LWVEF to publish a series of pamphlets on the environmental impact of growth.

These grants not only permit the LWVEF to research and develop issue publications for Leagues and the public but also to fund local and state League education projects tailored to their communities. The LWVEF differs from most environmental education groups in this ability to assure that its educational activities have their greatest impact where it is needed most—at the grassroots level.

Recent Water Quality Planning Projects

In June 1976, the League of Women Voters Education Fund received a grant from EPA to work with Leagues in 15 areas and five states to inform citizens, public officials, and a variety of organizations about the quality of their water and the potential impacts of Section 208 of the FWPCA of 1972. In most cases, the League task forces found that they were providing information not generally available to these groups. In those cases where the information was available. people often did not know where to locate it or found the information too technical for their needs.

The first grant from EPA funding this project made it possible for League-sponsored task forces to successfully increase public awareness of water quality planning through presentations to local selectmen and planning commissions, major conferences on agricultural runoff, local newspaper articles on 208 planning and water quality, and radio and television editorials and programs covering the water situation in several areas and states.

The success of the first grant led to a second grant from EPA in 1977-78 in which Leagues in Arizona, Arkansas, Colorado, Indiana, Kansas, Maine, Missouri, New Mexico, Ohio, Vermont and Wyoming worked with their state 208 planning agencies to encourage different sectors of the public to learn about and take part in ongoing water quality planning. Techniques ranged from holding workshops and conferences to publicizing state-sponsored public meetings by radio and TV public service announcements. Several leagues ran bus tours to draw the attention of citizens and officials to existing pollution problems and develop their ideas about controlling various pollution sources.

Solid Waste Management Projects

The LWVEF is currently engaged in its fifth training grant from EPA's Office of Solid Waste Management Programs. These grants have permitted the LWVEF to fund Leagues in six states and five cities in citizen education on solid waste management problems and options. Under the most recent grant, six state Leagues conducted state-wide education projects on the impact and options under the 1976 Resource Conservation Recovery Act. State League projects ranged from bus tours of various waste management facilities to intra-state conferences on hazardous waste problems. For example, the Texas League distributed information packets to county commissioners and other public officials and Georgia League members published a newsletter on the law's effects in their state.

Local League projects covered two areas within the overall subject of solid waste management. Leagues worked to develop community awareness about the benefits and problems of landfill siting and to increase residents' participation in curbside collection of recyclables. Their methods included slide shows, luncheons for public officials, and a "trash bash" designed to raise public awareness about recycling.

Earlier local League projects also addressed the steps individuals can take to reduce waste.

Land Use Projects

Within the topic of land use, the LWVEF has focused much of its attention on Coastal Zone Management and on the implications of energy development on the western states—the site of most of the nation's untapped energy resources.

Two successive grants from the Office of Coastal Zone Management have funded LWVEF work in familiarizing the public in coastal states with the issues in coastal area planning.

An initial national conference was held on the requirements of the Coastal Zone Management program and subsequently Leagues carried out a variety of educational activities in the 30 coastal states, the Virgin Islands and Puerto Rico. Boat tours, simulation games for civic leaders, TV shows, travelling exhibits and area conferences were among the methods Leagues used to reach the public on this issue.

Conferences have also been held for leaders in the affected states on the Impacts of Western Coal Development. Covering the many issues implicit in change for the area, the conferences were held in New Mexico (for the four state corners states of Utah, New Mexico, Arizona and Colorado) and in Montana (for the northern states of North Dakota, South Dakota, Wyoming and Montana).

Energy Education Projects

As energy became a dominant national issue and also of particular interest to League members, the LWVEF became involved in energy education. Along with the publication of basic energy education materials, a national conference and seven regional conferences on conservation of energy, the League became involved in a variety of locally oriented public education projects.

Energy Conservation Technology Education Pilot Program. In the spring of 1977 the LWVEF received funding from the Department of Energy (DOE) to undertake nine-month long pilot projects in four communities across the country, representing a mix of geographic, climatic and demographic conditions. Begun in September 1977, the projects, aimed at demonstrating how to use energy more efficiently in the home, ran through May 1978. The projects included a variety of approaches to public education.

For example:

West Hartford, CT—co-sponsored a New England-style Town Energy Meeting in October '77. It followed up with a series of "hands-on" workshops, in which participants learned how to retrofit their individual homes.

Northfield, MN—with 37 League members and a city population of 10,000—worked at the neighborhood level, holding block meetings in individual homes that featured "walk-through" energy audits of those homes.

Tucson, AZ—designed and constructed six demonstration models for its presentations before community groups that show do-it-yourself conservation methods on weather-stripping, window-shielding, insulation, cooking, water conservation and energy-efficient appliances. It also produced several five-minute videotape segments on energy-efficient techniques, for TV and other public outlets.

Wake County, NC—likewise turned to the visual media, televising home energy audits and producing a slide show on energy conservation. It also sponsored workshops for volunteers from other community organizations on how to present energy conservation programs to their memberships.

The success of these and other local League projects in the Energy Conservation Program showed the need for a practical "how to" guide on how to organize a community-wide energy conservation education project. Production of such a guide is planned by the LWVEF.

Energy Education Program. In May 1974, the LWVEF Energy Task Force initiated a program to increase citizen awareness of the energy dilemmas facing the United States and the world. The postulate was that increased awareness would make individuals more efficient users of energy, further their understanding of energy problems and proposed solutions, and lead to informed participation in the making of energy policy. During the period 1974-76, the LWVEF concentrated on developing, through publications and conferences, citizen understanding of the complexities of the energy problem and the urgent need to conserve energy.

In order to provide a broader public education program, the LWVEF, in 1976-77, developed the following three-part energy education project which was financed by a consortium of energy companies and electric utilities across the United States:

1. The writing, publication, and distribution of two major LWVEF booklets, Energy Dilemmas and Energy Options, which together examine key issues sources and options, and the government's role in meeting future needs;

2. A national League energy training conference, held on June 1-3, 1977 in Washington, DC to help prepare two League leaders from each state, Puerto Rico, the Virgin Islands and the District of Columbia to undertake an energy education project in their state or area; and

3. "Seed money" for the 53 Leagues to carry out their energy projects.

The former Office of Public Affairs of the Energy Research and Development Administration (ERDA) awarded a grant to the Education Fund in June 1977 to enable the 53 Leagues to expand their energy education efforts.

Within the broad guidelines established by the LWVEF for this effort, the 53 Leagues have carried out the kind of projects they felt best met the needs of their states. The Department of Energy has provided the LWVEF with a grant to continue this broad education effort for a second year in a selected number of states enabling the selected Leagues to take advantage of the momentum developed during the first year's effort, including the materials already prepared and the expertise acquired, to reach a greater number of people. In addition, it will provide them with an opportunity to explore new techniques and projects.

LWVEF Environmental Publications

Within the areas on which the LWVEF focuses, numerous citizen education publications have been developed. Frequently these publications complement local and state League grassroots grant-assisted projects with a national overview of an issue. For example, several publications on 208 water quality planning have been produced by the LWVEF. These include one-sheet Updates on Section 208 called: Doing Something About Polluted Water, Putting the Pieces Together, and Grime in the Streets: The Problems of Urban Runoff. A Community Guide, Getting in the Swim: How Citizens Can Influence Water Quality Planning, outlines techniques for increasing citizen participation.

On the subject of Solid Waste, similar publications are available; for example, Curbing Trash, an outline of the factors in deciding to establish separate collections, and Is There Enough Trash for Everybody? an analysis of the issues in balancing the often conflicting approached for dealing with solid waste.

Land Use publications closely related to the CZM project include Energy and Our Coasts: the 1976 CZM Amendments and The Onshore Impacts of Offshore Oil. A grant from HEW's Office of Environmental Education allowed us to produce six Land Use Letters, a series covering a variety of public lands issues. A publication was also produced on the Impacts of Western Coal Development.

On Energy, in addition to the publications Energy Dilemmas and Energy Options, a series of Energy Factsheets keep the public and project leaders up to date on new approaches to energy.

Besides these publications which complement projects, the LWVEF produces general interest publications in the natural resources field. These publications give an overview of a public issue, summarize laws, or show the interrelationships among several natural resources issues. Federal Environmental Laws and You, Cleaning Up the Nation's Cities, Coal Use and Clean Air: Goals in Collision?, Are Jobs Really the Price of a Clean Environment?, are examples of these publications. These publications are of particular benefit in orienting citizens and public officials to an issue and for students studying the environment and public policy. LWVEF publications are nominally priced to reach these audiences.

--Submitted by:

Isabelle P. Weber, Coordinator
Energy Department

October 1978

MASSACHUSETTS AUDUBON SOCIETY

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Founded in 1896 for the purpose of protecting wild birds and mammals, the Massachusetts Audubon Society (MAS) has evolved into a broad-based environmental organization clearly recognizing that the future of wildlife will be determined by the consequences of a wide range of other interfaces between people and the environment.

By the 1920s, the Society was sending lectures to school assemblies and public forums and in 1939 embarked on a program of contracting with schools to present nature and conservation classes on a biweekly basis directly with the children. This program grew and modified itself over the ensuing years into a variety of direct contacts through contract approaches to the public schools.

Major expansion of the Society occurred in the late 1950s and new departments have been added, many of which have one or more environmental education functions. Today there are seven program departments, each of which has some environmental education responsibility:

I. <u>The Hatheway Environmental Education Institute</u>

This is the Society's educational lead department with primary responsibility for formal workings with schools and inservice training of teachers and other formal and non-formal educational personnel. The Institute also does inservice training on environmental education for other MAS staff. The Institute supervises the seven environmental day camps; Wildwood, the resident environmental camp; and Expeditions, the travel camps for teenagers. Massachusetts Audubon Society pioneered the idea of camps whose total program focus was natural history and the environment.

The Institute created an Environmental Education Resource Center in 1966 to serve the New England area. It has fostered a number of others since then, but remains the most extensive, with over 5000 volumes of books, more than 150 periodicals, 34 file drawers of curriculum materials, environmental reports and similar resources, a large collection of films, filmstrips, posters, recordings, teaching games and other instructional resources. This is a use-oriented special library that services several thousand people a year.

In conjunction with this resource center since 1975, the Society has sponsored an Environmental Teacher's Center with its own teacher governing board.

The Institute staff is also responsible for the Society's role in leadership in environmental education at state, regional and local levels. It received and coordinated the 1971 grant that underwrote

development of the Massachusetts State Plan for Environmental Education and initiated, and for twelve years coordinated, the annual New England Environmental Education Conference. It continues to work in a variety of ways to foster mutualism in environmental education.

The Institute is responsible for the Earth Corps program, an out-of-school program under development to provide a comprehensive environmental education program basically outside the framework of schooling. Designed to mesh with existing youth programs or stand alone as a club, the Earth Corps is co-sponsored by MAS and a local sponsor. The Society provides leadership training and activity suggestions; the local sponsor handles local arrangements and youth recruitment. Begun in 1976, the program is in expanded pilot phase and will be headed into full implementation by early 1980.

II. Sanctuary Operations Department

Massachusetts Audubon Society owns some 10,000 acres of land in the Commonwealth. They are a mix of open spaces and staffed sanctuaries. The 13 staffed sanctuaries are multi-functional but education is one of the major functions. In addition, the Society operates two educational centers under management contract with the state.

The staffed sanctuaries are the sites of the environmental camps. They are also the sites for adult courses, informal educational activities, after-school youth programs, and self-guiding interpretive programs. The various sanctuaries vary in intensity of their programming. Two of the sanctuaries have education as a primary focus—Laughing Brook and Drumlin Farm. Drumlin Farm is a registered National Environmental Education Landmark.

Space does not permit adequate elaboration of the environmental education activities, sanctuary by sanctuary. Suffice it to say that they serve as local activity sites for a variety of the Society's educational efforts and generally have an educational special focus of their own. One has focused on educating local government personnel, another on educating about riverine systems at all levels, another is an amateur research station focused on educating about the role of farming and solar energy in an urban society, and so it goes.

III. The Natural History Services Department

The Natural History Services Department is involved in a variety of efforts. It handles the bulk of the phone calls from the public on natural history and environmental matters. It also runs an extensive, world-wide tour business which brings adults into contact not only with wildlife around the world, but with the variety of human activity that is disrupting the environment. The people who participate in such tours are frequently people in leadership positions who can, and do, use such experiential education to shape policies in their sphere of influence to deal with these broader issues.

IV. The Environmental Affairs Department

The Environmental Affairs Department is primarily engaged in dealing with the current environmental issues. It is the newest department. Lobbying is an important function, but education a major function. The education work of this department is largely focused on the data base needed to understand issues and determine action positions. It stresses education through involvement. It also features instruction on the processes of initiating change.

V. The Environmental Intern Program

This program has grown from a northeast regional effort to a nationwide program with centers in Cleveland and San Francisco as well as Lincoln. By its very nature it is primarily an education program with a focus on experiential learning through direct involvement, primarily for undergraduate and graduate level college students. Opportunities in environmental law, management, research, and education in corporate, governmental, and non-profit arenas are generally available. The program also runs special seminars for the interns on a variety of environmental topics.

VI. The Publications Department

This department is responsible for preparing most of the MAS publications that bring environmental issues and information to both members and the public at large. Regular publications are the Massachusetts Audubon Society Newsletter, the annual Yearbook publication, and the Curious Naturalist, a publication for beginning naturalists. The editorial and writing staff also work with others of the Society staff to prepare information papers on a wide variety of environmental issues for dissemination to the general public. In addition, two columns, "Nature's Ways" and "Backyard Frontiers," are prepared weekly for publication in newspapers around the state.

This department also has the facilities for producing commercial-quality radio tapes for use by commercial stations, and for the production of slide tapes and filmstrips.

VII. The Scientific Staff

Last but not least of the departments is the Scientific Staff whose primary role is to assemble the data to keep our action positions as sound as possible and to continually assess the future to foresee the critical environmental issues the Society should address. Their educational function continues to be providing the data to the general staff for the preparation of articles, curricula, etc. They also organize conferences on critical environmental issues for appropriate public leaders to help educate such leadership about the most relevant data and concerns.

Environmental Education permeates all the work of the Massachusetts Audubon Society. The Society believes that such education is a lifelong process and must be part of the total educational system—

that includes home, community, church, school, media, workplace, and interest groups. Only through the articulation of messages from several segments of the educational system will the normative changes emerge that will result in improved human and environmental quality.

The Society believes that environmental literacy emerges developmentally from environmental awareness, expanding environmental understanding, to environmental concern, commitment, and action. Environmental quality is seen as the net sum of consequences of individual and corporate actions and lifestyles.

From such beliefs have emerged the comprehensive environmental education involvements of the Society reaching out as broadly as resources permit. Future plans involve regionalization of the Society's major educational efforts to bring critical human and material resources closer to the users and to enlarge the responsiveness to local issues and concerns and permit increased use of the local communities themselves as the basic instructional resource.

Although the Society has been actively involved with four of the state's major cities for 20 years or more, it looks forward to even more intensive involvement. It also looks forward to more extensive ties with higher education institutions although, even currently, several of the staff are involved as adjunct faculty.

The Massachusetts Audubon Society has more than 27,000 members and a permanent staff of about 150. About 50 of these staff people have education as a very significant if not major part of their job. In addition there are literally scores of temporary staff and volunteers whose primary tasks are in educational programming. Of the Society's roughly $3 million budget, about 25 percent is allocated directly to education activity.

The Society's formally stated goals (revised 1973) indicate the rationale for the continued emphasis on environmental education:

> The goal of Massachusetts Audubon Society is to preserve, maintain and improve a viable environment for humans and other living things.
>
> In order to achieve this goal, Massachusetts Audubon Society has set for itself the following objectives:
>
> > To assist in the preservation of wildlife and natural areas;
> >
> > To educate people to recognize the environmental consequences of their actions and to encourage them to make intelligent and informed decisions;
> >
> > To disseminate accurate, informed, objective and timely analyses of current and potential environmental issues;
> >
> > To assist government, industry and other elements of society in finding socially, scientifically and economically realistic solutions to environmental problems;

To provide active assistance to conservation and environmental groups, both public and private.

The Massachusetts Audubon Society remains committed to adult education based on involvement for working on immediate concerns and youth education for the long run in order to develop a citizenry with adequate knowledge and concern not to continue to blunder into ecological disasters and able to restructure the current environment to sustain the broadest diversity of life.

--Submitted by:

Charles E. Roth
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Hatheway Environmental
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June 1978

NATIONAL ASSOCIATION FOR ENVIRONMENTAL EDUCATION

P.O. Box 400
Troy OH 45373 (as of May 1, 1979)

Purposes and Structure

The National Association for Environmental Education (NAEE) is a professional society for environmental education. Its mission is the improvement of environmental education in all educational institutions, both formal and non-formal. The following statement of purposes has been extracted from the 1971 Constitution of the National Association for Environmental Education:

A. To promote environmental education programs within all educational institutions.

B. To coordinate environmental education activities among all educational institutions.

C. To disseminate information about environmental education programs for educational institutions.

D. To assist in beginning or developing programs of this kind and to serve as a resource to them.

E. To foster sharing of information about environmental education programs among institutional and individual members of the Association; to promote communication about environmental education; and to promote the pooling of information, resources, and activities in connection with such programs.

F. To foster research and evaluation in connection with environmental education.

A more recent statement of goals and objectives for the National Association for Environmental Education is being developed. The primary goal of the Association, according to a draft of this statement, is to develop, promote, and encourage vigorous support for educational programs that will produce an environmentally literate citizenry which lives in harmony with the ecosystem and possesses the skills, attitudes, and knowledge necessary to identify and solve environmental problems.

In its philosophy, the National Association for Environmental Education is eclectic. It strives toward balance among the diversity of points of view about environment and environmental education. The Association emphasizes the need for multidisciplinary approaches in

helping people develop a mature and functional understanding of the environment and people's interaction with it. To be environmentally literate, people must understand the basic principles of ecology and the impact people have had on the environment; they must also comprehend the economic, political, social, and technologic factors which influence the environment, people, and their interaction. In addition, they must recognize that this total range of factors influences the quality of our lives and that our decisions and actions reflect both knowledge and values. In short, environmental issues are complex and require broad, powerful educational treatments.

As a professional society for environmental educators, NAEE's membership comprises a broad range of people involved in environmental education, including teachers and administrators from elementary schools, secondary schools, community colleges, and universities, along with people employed by museums, nature centers, governmental agencies, industries, and private organizations with responsibilities for environmental education. Currently, 46 states and Canada are represented on the membership roster, and the Association welcomes members from all North American countries. Thus, the involvements of the Association are both national and international in scope.

Institutional memberships are available to all educational institutions and the designated representative from each is eligible to vote, as are all individual members. Companies, foundations, institutions, associations, or individuals may apply for sustaining membership or contributing membership. However, these are non-voting memberships.

The National Association for Environmental Education is governed by a 24-member Board of Directors which is the legal policymaking body of the Association. Six Board members are elected each year to four-year terms. The Constitution requires that the Board of Directors maintain a balance among the constituencies it serves, in that at least five of the Board members must be associated with each of the following types of institutions: precollege schools or state or provincial offices of environmental education; community colleges; and universities. Also, no more than half of the membership of the Board of Directors may be associated with any one of the types of educational institutions.

The National Association for Environmental Education also has an Executive Committee which includes the President, the President-Elect, the Past-President and two additional members appointed by the President. The Executive Committee is responsible for the daily affairs of the Association.

The headquarters of the National Association for Environmental Education will be located at the Brukner Nature Center, Troy, Ohio, as of May 1979.

Activities

National Association for Environmental Education has seen steady growth since its inception in 1971. At the end of 1977, its paid membership was approximately 600. An increase of 75-125 members has been registered each year since 1974.

The activities of the Association are many and varied; however, four stand out:

1. The Annual Conference. Each spring since 1972 the National Association for Environmental Education has conducted an Annual Conference at which environmental educators convene to deliver and discuss papers on a wide range of substantive, pedagogical, philosophical, and research issues related to environmental education. Workshops, field trips, media exhibits, book exhibits, and an Idea Mart have been formal parts of this program.

   Typically, about two-thirds of the membership has attended the conferences which have been held in the following locations in either late April or early May:

First	1972 Hot Springs, Arkansas
Second	1973 St. Louis, Missouri
Third	1974 San Francisco, California
Fourth	1975 New Orleans, Louisiana
Fifth	1976 Atlanta, Georgia
Sixth	1977 Estes Park, Colorado
Seventh	1978 Chicago, Illinois
Eighth	1979 Blacksburg, Virginia

   The Annual Conference is gaining a reputation, both nationally and internationally, as being a major vehicle for communication of ideas relating to environmental education. The conference provides environmental educators with a forum that is an essential part of any profession's healthy maintenance.

2. Publications. National Association for Environmental Education has developed a small, but important, array of publications in the field of environmental education. Beginning with the 1975 Conference, and each year since then, an annual volume entitled Current Issues in Environmental Education has been compiled from selected papers given at the Annual Conference. These volumes have been published jointly by NAEE and the ERIC/SMEAC Clearinghouse for Science, Mathematics and Environmental Education. Each volume represents a collection of important research and ideas in environmental education and stands as a valuable document in the field.

   The NAEE has prepared other useful publications, including:

   Man and Environment--A college-level curriculum guide in environmental studies.

   Man and Environment for Secondary Schools—A curriculum guide for high schools in environmental studies.

   Man and Environment for Intermediate Grades—A curriculum guide for middle schools.

Selected Environmental Education Programs in North American Higher Education—A report on environmental studies programs at 13 colleges and universities in the U.S. and Canada.

Recent Masters Thesis Work in Environmental Education and Communication—A survey of masters level theses at 78 graduate departments in environmental education, prepared by David Hanselman and Chris Yuen.

3. Newsletter—A Newsletter is published and distributed free to members six times a year. The Newsletter contains information about the operation of the Association and its Annual Conference, along with other announcements of interest to members. Typically, the Newsletter will contain information on meetings of other professional organizations, announcements of new educational materials and programs, and reports on activities of the Association. In this way, the Newsletter serves as a useful vehicle for frequent communication to members on topics of general interest to environmental educators.

4. Awards—The National Association for Environmental Education has a continuing program of awards that spotlight persons and groups which have made significant contributions to environmental education. NAEE Awards have typically, though not always, been given on an annual basis in conjunction with the Annual Conferences. Past recipients have included public leaders, businesses, educators, and educational organizations with significant records of performance in environmental education. Nominations for recipients are solicited from the membership, screened by the Awards Committee, and approved by the Executive Committee.

Funding

The National Association for Environmental Education is largely supported by membership fees and conference registration fees. A small amount of money is realized from grants, gifts, and sale of publications. The revenue is utilized for meeting expenses related to the Annual Conference, the Newsletter, other publications, and general expenses such as secretarial assistance, postage, and telephone.

The budgeting of National Association for Environmental Education is quite similar to that of other professional societies of similar size. As membership and conference attendance have grown, the budget and services which the Association can provide have also increased.

Measures of Success

A very significant measure of success of National Association of Environmental Education is its consistent pattern of growth in a

period when many other professional societies are having difficulty maintaining membership levels. This is doubly important when viewed in light of a current national climate of declining interest in environment as a pressing issue.

Additionally, each year, the Annual Conference is evaluated by the attendees. These evaluations have been very favorable. Moreover, members have shown keen interest in contributing to and working on the conference program.

There has also been strong interest in the governance and progress of the Association. Members have been willing to serve on committees and volunteer for offices. The fact that committee assignments and offices, no matter how demanding, have been filled easily attests to the importance people in the field attach to the significance of the Association.

Future Plans

National Association for Environmental Education plans to maintain its orientation as a professional society that provides a forum for ideas in environmental education. It will continue its Annual Conferences, its publications, its Newsletter, and its awards program. It will continue to attempt to attract new members and retain current ones. It will continue to serve as a major professional society for environmental educators and provide the services normally associated with professional societies.

Changes are also projected for NAEE:

- -The Association will modify its Constitution within the next year to permit the establishment of Sections to address the needs and interests of specialized groups such as higher education, teacher education, research, K-12, and governmental agencies. This reflects the concerns of several members regarding needs for greater depth in specialized areas of environmental education while, at the same time, retaining the eclectic character which environmental education demands. Also, more emphasis will be given to attracting and retaining research scientists to the Association.

- -The Association will explore ways of achieving better coordination with other professional societies such as the Conservation Education Association and the State Environmental Education Coordinators Association.

- -The Association has established a task force to study and make recommendations regarding the establishment of State Chapters of NAEE.

- -The Association has established a committee to study and make recommendations regarding needed publications for environmental educators.

Summary

In its eighty-year history, NAEE has become a viable professional society for environmental educators which is able to provide the services typically associated with professional societies. Its membership is growing and it has established itself in a respected position of leadership in the community of environmental educators.

--Submitted by:

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June 1978

NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

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BACKGROUND

National, State and Territorial Associations

The National Association of Conservation Districts (NACD) is a private non-profit organization representing the nearly 3000 local conservation districts and their state associations in 50 states, Puerto Rico and the Virgin Islands. It was formed in 1946. It is financially dependent upon volunteer contributions of conservation districts, organizations and individuals; grants; and small miscellaneous sources of income.

NACD and the 52 state and territorial associations of conservation districts carry out the following functions at the national and state level respectively:

1. Help conservation districts speak with one voice on conservation and environmental issues at both state and national levels.

2. Pool district experience and develop state and national policies on a continuing basis through the traditional American system of graduated representation.

3. Foster communications between the districts and to the public through various means such as meetings, conventions, newsletters (as NACD's weekly Tuesday Letter), reports and in other ways.

4. Provide conservation districts with needed materials and special services through the NACD Service Department.

5. Help further conservation district programs by creating and maintaining relationships with organizations and agencies which cooperate with districts or whose action affect their programs.

A great deal of the work of NACD and the state and territorial associations is accomplished through committees. Each of these units has an education committee. The charges for the NACD Education Committee are:

1. Help state associations and conservation districts initiate and carry out effective programs of conservation, and environmental education, focusing on soil and water and related resources.

2. Cooperate with and enlist the support of other organizations and agencies in behalf of conservation and environmental education.

3. Represent conservation district views and interests in education at the national level.

4. Maintain conservation and environmental education recognition programs for teachers and conservation districts.

5. Produce and/or disseminate materials in the field of conservation education which are useful to state associations, conservation districts, and others.

6. Support legislation needed to advance environmental education, in accordance with NACD policy.

7. Provide a means of communication between NACD and its members in the field of conservation and environmental education.

8. Find continuing financial support for conservation and environmental education activities of NACD and its member districts.

9. Initiate and maintain a program for informing the public of the work and objectives of conservation districts and of their state and national associations.

Conservation Districts

Conservation districts go by a variety of names, depending upon the legislation which authorized them in each of the states. In Illinois, for example, they are called soil and water conservation districts; in Iowa, soil conservation districts; New Mexico, natural resource conservation districts, etc. They are charged in each state to carry out programs to conserve the soil, water and related natural resources and are the only local entity of government throughout this country with the responsibility for the conservation of natural resources.

The districts are often confused with the U.S. Soil Conservation Service, or with the Extension Service, or in the northeast with municipal conservation or environment commissions. The districts often work with these groups, so that the confusion generated by the names is natural. The districts described here, however, are local units of state government, usually on county boundaries, made up of local citizens either elected or appointed to the district board and are unpaid.

Their basic responsibility is to determine the high priority conservation needs and ways to deal with these needs. They seek and receive assistance from all sources—government agencies and the private sector. They work closely with rural and non-rural landowners and operators as well as with planners, educators and developers. In other words, the

districts identify the conservation problems and act as the coordinating center for all types of assistance for achieving solutions to these problems.

Districts were first established more than 40 years ago, following the great Dust Bowl days. They have developed a wealth of experience and amassed huge amounts of information about their area's natural resources as well as remedial measures to deal with problem situations. Long-range preventive programs have also been developed.

Why Conservation Districts are Involved in Environmental Education

Conservation District officials know that the contour strip cropping which the farmer applies this year, or the developer's sediment basin or the landowner's tree planting, are conservation practices which are needed to deal with today's problems on that particular parcel of land, but what about ten years from now? Or, a generation from now? Will there be informed citizens to make good decisions and to carry out appropriate conservation practices in the future? The conservation districts deal with today's conservation problems, but must also look to the future. That is one principal reason they are involved in environmental education.

The other reason is that nearly all of the soil, water, forest and wildlife conservation which is practiced on the private lands of the nation is done on a voluntary basis. The four key elements for operating successfully under this kind of a system are: (a) availability of technical assistance, (b) cost-sharing assistance, (c) research, and (d) education. Very practical education must be provided to private landowners and managers as well as those who make decisions regarding the public's interest in both public and private lands—land use planners, municipal, county and state officials, engineers, school administrators, and many, many others.

Conservation districts include 97 percent of all private lands in the country. Thus, it can also be expected that farmers comprise a large part of the Boards, but there are also numerous businessmen, teachers, and just plain citizens—all of whom are concerned with conservation of their natural resources. The conservation district's principal function in environmental education as related to schools is to stimulate teachers to include environmental elements in their courses.

Conservation districts also help teachers to be better prepared to take students into the out-of-doors for the "hands-on" experiences. The objective is to help teachers and students realize that environmental education is a continuous, life-long process, both in school and out, and that the total environment must be considered—natural and man-made—politically, economically, technologically, socially, and esthetically.

NACD Activities

In cooperation with the Allis-Chalmers Corporation, NACD has been sponsoring an annual environmental education awards program since 1973. One phase of this recognition program is for conservation districts and the other is for full-time classroom teachers, K-12. Fifty-two state and territorial winners are recognized in each of the two categories (district and teacher); seven first place regional winners and a first and second place national winner in each category also receive recognition.

The rest of NACD's environmental education activities are mainly directed to assisting the state associations and the 3000 conservation districts to become more involved with and more effective in environmental education activities at the state and local levels. Publications, films, and library materials are available at the National Association, as indicated below.

Environmental Education Projects of Conservation Districts

Each conservation district chooses its own program, adapting it to the needs of that particular district. In the 3000 districts most projects can be grouped into four categories. Activities with schools account for half; the other half is divided among activities with youth organizations, publicity and promotional activities, and district-oriented environmental education projects. Examples of some of these district projects are:

- -provide teacher scholarships to environmental education workshops, seminars, and courses;
- -assist in developing and carrying out teacher environmental education workshops;
- -assist high schools and colleges with conservation career planning;
- -provide schools with trees for planting on Arbor Day and on other occasions;
- -provide schools with environmental education curriculum guides or packets of environmental education information;
- -provide teachers with a list of community conservation activities which classes may undertake;
- -assist in establishing an Environmental Education Advisory Council in each school district;
- -publish a conservation education newsletter for teachers and youth leaders;
- -assist with Scout Conservation Merit Badge programs;

-sponsor public forums on local conservation issues;

-sponsor recognition or awards programs to community groups, service clubs or schools for environmental education accomplishments.

State and Territorial Association Programs

Some of the environmental education projects which state and territorial associations undertake include:

-assist in formation or reactivation of a state environmental education advisory council;

-secure employment of a full-time state environmental education consultant in the state education agency;

-work on state legislation relating to environmental education;

-promote teacher training in environmental education, both pre-service and in-service;

-develop public relations and promotion of environmental education through all media;

-develop public service announcements;

-work on continuous funding (various sources) for the work of the education committee, the environmental education consultant's office and the advisory council;

-work with Scouts, 4-H and other youth groups at the state level;

-initiate environmental education recognition and awards programs at state level;

-work with colleges in teacher education workshops;

-establish relations with state teachers' associations;

-coordinate goal-setting activities with other groups and agencies;

-recommend teacher accreditation and certification standards to include environmental education training;

-work for implementation of state Environmental Education Master Plan;

-conduct workshops for district education committee chairmen, and for district supervisors and employees;

-encourage districts to include environmental education in their long-range and annual work plans;

-develop model environmental education programs for districts;

-help districts set up an evaluation program for environmental education;

-hold a state-wide meeting of district education committees and youth boards;

-prepare "How to do it" fact sheets on specific environmental education activities that districts might undertake;

-prepare guidelines and suggestions for district recognition programs, including the NACD-Allis Chalmers entries;

-work with media to get public recognition of environmental education activities;

-provide handbooks and educational materials.

Materials Available from NACD

Among materials of use to educators which are available from NACD are:

Ideas for Action in Environmental Education;
An Environmental Action Guide;
America's Conservation Districts; and
A District Program for Youth.

Single copies of each of the above are free; bulk orders are $15/hundred copies of each.

Educational audio-visual materials which are available on loan from NACD Environmental Film Service, P.O. Box 855, League City, TX 77573 include slide/tape shows on programs of conservation districts and of those teachers who have won awards in the NACD-Allis Chalmers competitions. The Davis Conservation Library, at the League City address, is NACD's repository for a collection of books and periodicals, and reports on soil, water, and related resource conservation subjects.

NACD FUTURE PROJECTS

Near Future

Planned are a State Association Handbook for education committee members, and a four-page bimonthly Newsletter with the goals of stimulating and training district officials to initiate educational projects in their communities and local schools. An example is the recently published Conservation District Guide for Education Programs which gives conservation districts and their staffs guidance and ideas on the planning and implementation of effective coordinated programs of environmental education.

Another near-term project is a model booklet which state associations can use and distribute, tailored to individual programs within their respective states. This booklet will be useful to teachers in planning environmental studies and projects.

Long Range

NACD projects and activities anticipated over a longer time frame include:

1. Encouraging the training of all teachers in environmental conservation education, toward the goal of having all

teachers teaching conservation in all parts of their curricula.

2. Incorporating energy into the NACD education program;

3. Encouraging the teaching of natural resource conservation in schools of planning and in other professional fields;

4. Encouraging districts and state associations to sponsor adult classes, tours, and similar activities in adult education, in cooperation with the Cooperative Extension Service and other groups;

5. Producing a slide program or filmstrip on conservation education;

6. Promoting distribution of suitable curriculum materials;

7. Encouraging state association presidents to use the educational slide/tape sets in the NACD library at their annual meetings and at other state association and district functions;

8. Developing, testing, and disseminating a model training program for district officials for use nationwide, and producing materials to be used in such training programs;

9. Developing, testing, and disseminating, in cooperation with institutions of higher education, models for teacher in-service environmental education workshops and seminars, and for teacher pre-service courses in environmental education.

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December 1978

NATIONAL AUDUBON SOCIETY

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Russell W. Peterson, President (April 1, 1979)

The very founding of the National Audubon Society at the turn of this century was an environmental education achievement. The result was the nesting season protection of wading birds such as the egrets. Theretofore, market hunters killed thousands of birds for feathers, wings, and other body parts to be used in the fashion trade. When the birds were at their most gorgeous plumage of course, the breeding and nesting season, was the time for the harvest. Thousands of nestlings starved to death because the parent birds were never to return. This practice upset a few persons. They became charter members of the National Audubon Society.

From a handful of original members in the National Audubon Society, the membership has grown to approximately 380,000 in 1978. The Society is a non-profit, non-government, environmental education organization. It is supported solely by memberships and tax-deductible donations.

Within the last two decades the Society has become increasingly more diverse in objectives and active in accomplishments. Four of several objectives of the Society include protection of unique habitat areas, promotion of environmentally sound legislation, protection of endangered species, and most importantly, promotion of environmental education.

The Society's founders adopted the name "Audubon" from the famous early American bird artist, John James Audubon (1785-1851). Members of the National Audubon Society receive the award-winning magazine entitled Audubon, become members of local chapters of the Society in their communities, and, at least vicariously, become part owners of approximately 75 sanctuaries operated by the Society. These land holdings are found throughout the United States and vary in size from a few acres to tens of thousands of acres.

Nine of the 75 sanctuaries are operated for environmental education activities. Five of these nine sanctuaries are youth-oriented and open to the public year around. The other four are summer environmental education facilities for adults. The remaining 65 sanctuaries are for outright protection of habitat areas and their natural inhabitants and/or for scientific and/or educational research.

Currently these are the six youth-oriented Audubon Centers in the United States, their dates of dedication, acreages, and locations:

> Audubon Center of Greenwich (1942). The first Audubon Center of the Society is located near Greenwich, Connecticut. It is 460 acres and approximately 40 miles north of New York City.

Aullwood Audubon Center (1957) and Farm (1962). Approximately 20 miles north of Dayton, Ohio, this center/farm facility is composed of 190 acres.

Sharon Audubon Center (1961). This 526-acre center near Sharon, Connecticut, is less than 10 miles from the eastern border of upstate New York.

Whittell Education Center (1967). On 11 acres at the north end of San Francisco Bay, this center overlooks the Society's 800-acre Richardson Bay Wildlife Sanctuary.

Schlitz Audubon Center (1974). On the shore of Lake Michigan approximately 10 miles north of Milwaukee, Wisconsin, this center is located on 185.7 acres.

The National Audubon Society also operated the El Monte Nature Center from 1959 until 1971 when the United States Army Corps of Engineers resumed control of the 110-acre site. The El Monte Audubon Center was located about 40 miles east of Los Angeles, California.

Early in 1978, the National Audubon Society contacted and contracted a three-member evaluation team to evaluate the Audubon Centers. Dr. Dean B. Bennett, University of Maine, was the chairman. He was joined by John M. Good, Everglades National Park, and Dr. William B. Stapp, University of Michigan. The following three paragraphs are quoted from the evaluation team's report:

> We believe that the National Audubon Society possesses a clear potential to continue and expand the environmental education leadership role of its nature centers. During the past 25 years the Society has taken strong leadership in environmental education by establishing nature centers in California, Wisconsin, Ohio and Connecticut. These centers have served as educational models for the regions they are in, as well as for the entire nation.
>
> The National Audubon Society has been instrumental in helping communities and private organizations in establishing over 1100 centers distributed over the United States and in various countries around the world. These centers have been effective in promoting environmental awareness and concern. In most instances, National Audubon Centers have helped to shape the programs in these other centers and to train many of their staff members.
>
> Presently there is a need to both continue the present focus of these centers and to develop new models to meet emerging needs. We believe that the National Audubon Centers should continue their present program emphasis of developing an awareness and concern for the natural environment. National

Audubon Society has developed a national image and a legion of devoted members because of approaches stressing these emphases. But there is a need to assess the effectiveness of traditional approaches and to develop, test, and disseminate new methods and techniques for nature study. National Audubon Centers can take a leadership role in this task.

The director of the Schlitz Audubon Center represents the National Audubon Society on the Alliance for Environmental Education.

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NATIONAL COUNCIL FOR GEOGRAPHIC EDUCATION

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The National Council for Geographic Education (NCGE), chartered in 1915, played an active role during the formation of the Alliance for Environmental Education. In November of 1972, the Executive Board of the NCGE approved participation in the Alliance. Early in 1973, William W. (Bill) Elam, Executive Secretary of NCGE, was "working hard to make NCGE's interest in the fledgling Alliance for Environmental Education known by participation in the formative stages of that group."[1]

While the purpose of the NCGE is to promote the effective teaching of the discipline of geography at all levels of instruction, the similarities between geographic educators and environmental educators should be noted. As Preston James observed in an address at an annual meeting, "The geographer looks at the whole of man's habitat, or his natural surroundings, as a system of functionally related parts, so inter-connected that a change of any one part results in changes in the others."[2] An expanded discussion of the role of geographic education in relation to environmental concerns and values is given in one of NCGE's special publications.[3]

Annual Meetings

One indicator of an organization's environmental education activities is the theme and content of its annual meetings. A survey of the NCGE's programs over the past five years shows considerable environmental education emphases. The theme of the 1973 meeting in Washington, DC was "Geography as Effective Environmental Education." Among the workshops dealing with experiences in environmental education was a pre-convention Environmental Heritage Workshop to demonstrate how community projects can be established based on the local watershed as an integrating unit. As in all NCGE annual meetings, field tours were conducted to local sites of environmental interest.

"Geographic Concepts and World Crises" was the theme of the annual meeting in Chicago in 1974, and some of the world crises of an environmental nature were identified in the keynote address by Preston James. Examples of sessions contributing to environmental education were:

> A Plan for Cohesive Interdisciplinary Instruction in Secondary Environmental Education, by Mary A. Hepburn,
>
> Understanding of Environmental Problems through Land Planning, by Paul K. Grogger, and

Hidden Interests: A Simulation Dealing with the Environmental Impact of Highway Location—designed as a culminating exercise for HSGP (High School Geography Project).

The 1975 meeting was held in Toronto in conjunction with the Ontario Association for Geographic and Environmental Education. An environmental studies workshop preceded the convention and the theme, "Issues in North American Geography," was addressed by the banquet speaker, Dr. F. Kenneth Hare, Head of the Institute of Environmental Studies, University of Toronto.

San Francisco was the site of the bicentennial meeting in 1976. Appropriately, field trips were made to the Muir Woods and to the Central City Schoolyard Outdoor Education Project at Washington Primary School where community interaction converted a blacktop surface into a variety of environmental experiences for children. Workshops focused on Recent Developments in Environmental and Resource Analysis and Tools for Environmental Study. A grant from the U.S. Office of Technology and Environmental Education funded a series of six preconference workshops followed by six conference special sessions. The purpose of this grant, directed by Richard G. Boehm, was to expose teachers in grades 4-8 to a selection of high-quality environmental education materials, and to provide them with strategies for integrating these materials into existing curricula.

The Missouri Caucus for Environmental Education met with the NCGE at the annual meeting in St. Louis in 1977. An environmental education workshop for secondary teachers was held despite the lack of outside funding. The workshop focused on a 60-slide set developed by Phil Pryde. The set is entitled, "The Energy Problem," and is available for purchase from the NCGE Slide Library. The theme of the conference, "The Role of Geography in Decision Making," provided the framework for many environmental investigations and reports from new viewpoints in agriculture to urban growth decisions.

"Geography Skills in Geographic Education" was the theme of the 1978 NCGE meetings in Milwaukee. Because geography skills help to develop a sense of place, and a sense of place is essential in developing an environmental ethic, this October meeting on the shores of Lake Michigan was a shared concern of geographic and environmental educators.

Publications

Another gauge of an organization's activities in the field of environmental education is the nature of the publications which it promulgates. James Mitchell made a study of articles published by geographers on environmental topics from 1964 to 1973. For the purpose of his study, he defined an environmental topic as "one in which human perception, modification, or use of natural surroundings is of primary concern,"[4] and excluded purely natural science investigations and studies of human responses to the built environment from consideration. Some of his findings are shown in Tables 1 and 2.

Table 1

Major Themes of Environmental Research Published in Geographical Journals*

Theme	Number of Articles	Percentage
Agricultural systems and rural resource development	41	13.18
Theoretical issues	41	13.18
Water resources	40	12.86
Environmental hazards	32	10.29
Resource appraisals and environmental perception	28	9.00
Human modification of the environment	24	7.72
Food, hunger, diet	21	6.75
Energy resources	17	5.47
Medical geography	16	5.14
Marine and maritime resources	8	2.57
Population pressure, carrying capacity	8	2.57
Land use assessment	7	2.25
Livestock and wildlife management	4	1.29
Miscellaneous	24	7.72
TOTALS	311	99.99

*These include: *Annals of the Association of American Geographers; Geographical Review; Economic Geography; Proceedings of the Association of American Geographers; Professional Geographer; Journal of Geography; Environment and Behavior; Human Ecology; Journal of Environmental Management; Natural Resources Journal; Canadian Geographer; Australian Geographer; New Zealand Geographer; Geographical Journal; Transactions of the Institute of British Geographers; Scottish Geographical Magazine; Pacific Viewpoint; Journal of Tropical Geography; Geoforum.*

While Mitchell's report does not convey the full flavor of contemporary environmental research by geographers, it is an indication of interest in certain major environmental themes. A survey of The Journal of Geography (the official organ of the NCGE) reveals 57 articles between January of 1973 and March of 1978 which are clearly identifiable as being directly concerned with environmental education.[5] This number represents about 22 percent of the articles published during that time. In addition to the main articles, many of the book and film reviews were of environmental education materials.

Six of the 57 articles dealt with the historical and philosophical basis for the connection between geography and geographic education. These are exemplified by J. A. Rorabacher's, "Geo-Historical Approaches to Environment: The Evolution of Environmental Thought in Western Civilization."[6]

Table 2

Publication Trends

Themes	Number of Articles Published in Each Five-Year Period		Percentage Change
	1964-68	1969-73	
Environmental perception	4	24	+500
Environmental hazards	7	25	+257
Agricultural systems	13	28	+215
Theoretical issues	13	28	+215
Water resources	14	26	+186
Food, hunger, diet	8	13	+ 63
Energy resources	7	10	+ 43
Human modification of environment	11	13	+ 18
Marine and maritime resources	4	4	0
Medical geography	10	6	- 40
Population pressure	5	3	- 40

Three articles each were devoted to population and pollution with L. Soloman's "'Bottle Bill' Activities for the Classroom" being representative.[7] With geography's concern for land-use planning, industrial location, and the urban environment, it is not unexpected to find six articles on these topics. In line with national concerns, there were an increasing number of articles on energy in recent issues. These included Boehm's review of A Teacher's Handbook on Energy by Phillip R. Pryde in the January 1978 issue;[8] A. Fitzsimmons' and K. Walton's "Toward A Geography of Energy: A Review of Basic Sources and Literature," in the February 1978 issue;[9] and R. McCall's "Some Basics for Teaching Energy Conservation in the Home," in the March 1978 issue.[10]

While some articles, such as H. Reeves' "Fire in the Management of Vegetation"[11] dealt with environmental data, the bulk of the articles emphasized methodologies which could be used as models by teachers. Such an article was D. Holtgrieve's "Instructional Use of Environmental Impact Statements."[12]

There has long been a close tie between geography and community study and field study. It is therefore not unusual to find nine articles on these topics in the last five years. Of particular interest were the "Suggestions for Community Participation in Environmental Studies" by Rodney Allen, which appeared in the October and December 1974 issues and were also reprinted as Case Study 5.3 in Saveland, R., Handbook of Environmental Education with International Case Studies, Wiley Ltd., London, 1976.

In addition to the Journal of Geography, the NCGE has several series of publications focusing on curriculum, content and methods. The Instructional Activities Series, in particular, has a number of titles related to environmental education, such as:

1A/E-5	Our Crowded, Dirty World: The Development of Our Environmental Crisis and Its Impact Upon One's Habitat; Anne C. Garrett and Betty Ann Kozak
1A/E-7	No Place to Play: Valuing Dilemmas in the Choice of Recreational Sites; Jack Madden and Peter Martorella
1A/S-2	What is All this Dam Foolishness? Bill Erwin
1A/S-5	Rookery Bay: Can Conservation and Development Co-exist? Keith Bright and Jack Lambert
1A/S-14	Environmental Education as Telling Our Stories; Rodney Allen
1A/S-17	The Subsistence Agriculture Game: A Simulation of Farming; Tom Martinson and Vern Harnapp

Games and simulations seem especially suited to providing geographic and environmental learning experiences, and geographic educators have been active in developing such activities. Teachers with a special interest in these strategies will want to investigate some of the above, as well as "Eco-Acres: A Land Use Simulation Game"[13] and "Port Sivad: A Locational Division Game for a Noxious Public Facility."[14]

From the foregoing, it would appear that the NCGE is a vital and active link in the Alliance for Environmental Education chain. Yet, Towler and Brenchley have charged geographers with a lack of involvement in environmental education.[15] What is the true situation? Since some geographic educators have been actively involved in the environmental education, and others have paid it little heed, a case can be made both ways. However, the interest and concern of the NCGE and its leadership is fairly well documented.

Unfortunately, the NCGE has suffered some of the same handicaps which beset other environmental organizations. A comparatively small membership and a meagre financial base has limited the activities of the council and its Executive Director and staff.[16] Relocating the central offices from Chicago to Houston in 1977 has helped to improve the financial condition of the NCGE. Yet, like the discipline of geography itself, the NCGE can be said to be somewhat outside the mainstream of thought of the educational leadership and decision makers in this country. But geography and environmental problems persist.

--Submitted by:

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NATIONAL EDUCATION ASSOCIATION

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The National Education Association (NEA) has the following stated goals:

Advance the cause of education for all individuals;

Promote excellence among educators;

Gain recognition of the basic importance of the teacher in the learning process;

Protect the rights of educators and advance their interests and welfare;

Secure professional autonomy;

Unite educators for effective citizenship;

Promote and protect human civil rights; and

Obtain for its members the benefits of an independent united teaching profession.

The NEA has state and local affiliates in all states and U.S. territories, as well as an Overseas Education Association with 25 affiliates in that number of countries.

NEA's involvement with environmental education includes:

1. Vigorous support for legislation action at federal and state levels;

2. Support of selected local governmental environmental activities;

3. Services to NEA affiliates with their in-service activities, including Teacher Centers;

4. Participation in various collaborative educational environmental activities;

5. Publication of selected materials for teachers; and

6. Articles in Today's Education, which has a circulation of two million copies.

The NEA target audience is its membership, which means teachers. Activities of the NEA are largely supportive and catalytic. Programs are continuously being changed or developed at the NEA. An annual Publications Catalog is issued, a copy of which may be obtained by writing to the NEA.

Future plans include collaborative efforts with selected groups and organizations particularly for the purpose of either developing or assisting in developing environmental education materials for teachers which can be integrated into a variety of subject areas at all levels of schooling. Also, a feasibility study of using a combination of media for an educational environment in-service program for teachers is underway.

The amount of interest shown in publications in the area of energy indicates the need for more attention to the whole area of environmental education.

--Submitted by:

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June 1978

NATIONAL PARKS AND CONSERVATION ASSOCIATION

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The National Parks and Conservation Association (NPCA) is one of the major conservation and environmental organizations of the United States. It was established in 1919 at the behest of Stephen T. Mather, the first Director of the National Park Service, as a private membership organization to assist in the expansion and protection of the National Park System.

While the original focus of NPCA was on the parks, the Association also embarked years ago on a much broader program encompassing the entire conservation and environmental field. The NPCA is concerned, as a broad-purpose environmental organization, with forestry, wildlife, wilderness, river basins, pollution, energy, transportation, countryside protection, land use planning, and population and illegal immigration on a national and international basis. The NPCA is a tax-deductible educational institution, certified as such by the Internal Revenue Service.

The NPCA publishes National Parks and Conservation Magazine: The Environmental Journal, which goes to all of its approximately 40,000 members and contributors every month. It is the only monthly periodical published in the United States by a major conservation organization.

The magazine is NPCA's main educational vehicle. Each issue contains a major article on the National Parks, another on endangered species of plants or animals, and another on general environmental problems. Special departments report on the work of NPCA, on conservation news, and on the docket of events in the three branches of the federal government.

Among the members of NPCA and subscribers to the magazine are about 5000 to 6000 libraries, most of them associated with schools and colleges, many of which undertake to circulate the magazine extensively among their readers. These procedures constitute an educational process of great importance, tending to disseminate the conservation ethic and understanding among large numbers of students, teachers, and the general public.

Consultative services are provided by NPCA as a private membership organization to the agencies of the Executive Branch of the Federal government concerned with conservation problems, specifically, the National Park Service, the Fish and Wildlife Service, the Bureau of Land Management, the Office of Endangered Species, the Heritage Conservation and Recreation Service, the Forest Service, the National Oceanic and Atmospheric Administration, the Environmental Protection

Agency, the Council on Environmental Quality, and the Interior, Agriculture, Commerce, and State Departments.

Similar educational activities are carried on by NPCA with the Committees of both Houses of Congress having responsibility for natural resources and environmental problems. The Association is highly respected by the Congressional Committees and their staffs, for the quality of the information it provides in the public interest in these matters.

The NPCA also participates in legal proceedings brought in courts on environmental issues. It has been a leader in efforts of this kind from time to time, but also joins with other environmental organizations. This participation has educational value in advising the judiciary about environmental concerns. It may result in decisions which are of importance in themselves, but it also enriches public understanding of environmental matters through the written opinions of the judges.

The Association plans to establish a Conservation Education Committee consisting of persons interested in the problems with which it is dealing, residing throughout the United States. The membership of NPCA is recruited on a nationwide basis; it is not organized in chapters. The Conservation Education Committee will consist of members in various localities interested in conducting public educational activities on the issues with which NPCA is concerned; for example, parks, historic preservation, wildlife survival, and ecological forestry. Groups of members of the Committee will be formed in the various communities. The groups will serve as centers for educational work on the issues, on NPCA activities in regard to the issues, and for the utilization of filmstrips, motion pictures, and lectures by national NPCA representatives or other experts. They will also serve as sources of information on local and regional conservation problems for NPCA national operations.

A roster of contacts is maintained by NPCA which includes persons throughout the United States, and indeed abroad, interested in utilizing the educational materials developed by NPCA. These people may also represent NPCA at public hearings on many active issues, presenting statements which are of themselves of high educational value.

The NPCA proposes to establish a system of affiliates whereby local conservation, environmental, and civic organizations may affiliate to NPCA with a view to representation in Washington, but also with a view to presenting NPCA conservation approaches to local communities. Thus a person-to-person educational process will be established using the Conservation Education Committee, the contacts, and the affiliates to teach the conservation ethic nationally and worldwide.

The NPCA is financed mainly by the dues, contributions, and bequests of its members. It does not accept government grants, and is consequently in a position to act as an independent monitoring

organization over government agency policies, and to distribute unbiased educational material to wide audiences of independent citizens.

While higher education is normally and properly thought of as carried on by accredited educational institutions with a resident faculty and student body, the work of the major conservation organizations of the United States, such as NPCA, should also be looked upon as advanced education of great importance. The membership of NPCA includes opinion-formers with great influence in their communities and the ability to spread information and knowledge throughout their localities. They often maintain excellent relations with the local press and other media, and thus carry on vital public education functions.

The NPCA performs another role in the environmental movement which is unique among conservation organizations. It has functioned effectively to bring together some of the most important environmental coalitions ever established for public education and action on specific issues. Thus it established the Citizens Permanent Conference on the Potomac River Basin, composed of national, state and local farm, labor, and conservation organizations representing 7.5 million persons to oppose a program of the Army Corps of Engineers to build 16 major reservoirs in the Potomac River Basin and to educate the public on the issues; the effort was successful.

As another example, the NPCA organized the successful Everglades Coalition consisting of labor and conservation organizations to oppose the giant jetport in the Big Cypress Swamp north of Everglades National Park, which would have impaired water supply and water quality in the park. The Coalition also engaged in public education on the subject.

NPCA also organized the Environmental Coalition for North America with similar participation, to assist with the jetport problem and to get the Big Cypress National Preserve established; the Coalition then turned its attention to the Trans-Alaska pipeline and many other crucial environmental issues.

In all of this work, public education through the magazine and the education of public officials through direct contact with the Executive and Legislative Branches, has been crucial.

In its educational work, the NPCA stresses the importance of the normative orientation. It is not good enough to get many facts distributed through efficient distribution machinery and channels; it is essential that educational activities be carried on with specific reference to the human ends which ought to be served by those activities. For example, conservation education can be thought of as furthering man's conquest over nature, or it can be thought of as furthering man's protective functions toward nature. The NPCA approaches conservation issues in terms of human custodianship of the living resources of the planet.

--Submitted by:

Anthony Wayne Smith
President and General Counsel

October 1978

NATIONAL SCIENCE TEACHERS ASSOCIATION

1742 Connecticut Avenue, NW
Washington DC 20009
(202) 265-4150
Robert L. Silber, Executive Director

The National Science Teachers Association (NSTA) has a membership and subscription in excess of 40,000. "It is the world's largest organization dedicated to the improvement of science education at all levels, pre-school through college."

The objectives and purposes of the association are stated in its by-laws:

> The purpose for which the association is organized is to stimulate, improve, and coordinate science teaching at all levels of instruction and to engage in any and all activities in furtherance thereof; to promote the improvement of educational systems and processes in the schools in any manner to assist such stimulation and coordination of science teaching, to apprise the general public of possible means of improving science teaching with the schools; and generally to do any and all acts and things which may increase, through education, the knowledge of science devolving upon the general public through such knowledge of science.
>
> As part of the general purpose and objective, the Association may take whatever steps are necessary and engage in such activities as are necessary to meet its goals including but not limited to information, the funding and granting of scholarships or fellowships.

From the "NSTA Position Statement on School Science Education for the 70s,"[1] the following statements reflect the Association's stand on environmental education:

> The major goal of science education is to develop scientifically literate and personally concerned individuals with a high competence for rational thought and action. This choice of goals is based on the belief that achieving scientific literacy involves the development of attitudes, process skills, and concepts, necessary to meet the more general goals of all education, such as learning to live harmoniously within the biosphere.[2]

Further, the scientifically literate individual "uses science concepts, process skills, and values in making everyday decisions as he interacts with other people and with his environment."[3]

The NSTA Committee on Curriculum Studies: K-12 recommends among other things that "science education programs include environmental education that interrelate natural phenomena, environmental influence, science, technology, social implications of science and technology, and economic considerations."[4]

A specific plan for environmental education is not espoused by the NSTA. As each of the Standing Committees of the Association carries out its tasks, decisions relating to environmental education are made. The standing committees parallel the levels of representation of science educators within the organization, e.g.,

Committee on Preschool and Elementary Science Teaching
Committee on Middle School-Junior High School Science Teaching
Committee on College Science Teaching
Committee on Science Teacher Education
Committee on Research in Science Teaching
Committee on Supervision of Science Teaching

The committees make decisions that relate to environmental education. There is no environmental education committee per se.

The NSTA is involved in environmental education at the national, regional, state and local levels because (1) its membership is active at all geographical levels as the tasks of science education are conducted, (2) there are conventions and conferences held at the various levels, and (3) the publications of the NSTA reach all levels.

The Association is an association of persons who are interested in science education. They are involved in science education every day. They are involved in environmental education.

The programs of each of the conventions held each year, one national and three regional, are replete with sessions on environmental education. State and local associations include environmental education programs and workshops. The presenters of each of these programs, for the greater part, come from the membership of the NSTA. Some presentations on environmental education are requested by committee action. Most presentations are selected from the respondents to calls for participation/presentation made through official publications, Science and Children, The Science Teacher, and The Journal of College Science Teaching. A safe estimate of the annual attendance to the national and regional conventions would be 8000 individuals.

The principal audience for the science education and consequent environmental education efforts of the NSTA is all teachers of science and science supervisors from pre-school through the college. Pre-school includes nursery school. This audience receives environmental education information through NSTA periodicals and other NSTA publications and, again, through workshops and presentations at conventions and conferences.

There are no association funds specifically allocated to environmental education. However, proposals requesting funding of environmental education projects can be prepared and submitted to the NSTA Executive Committee for consideration along with other proposals.

Besides environmental education articles that are included in the three association journals, the following environmental education publications are available for purchase from NSTA headquarters:

Hunger: The World Food Crisis
Energy - Environment Source Book
Energy - Environment Materials Guide
Energy - Environment Mini-Unit Guide
Environment: The Human Impact
How to Investigate the Environment in the City: Air and Water
How to Present Audible Multi-Imagery in Environmental Ecological Education
How to Read the National Landscape in Forests and Fields
Elementary Science Packets:
Environment and Energy
Environment Education

--Submitted by:

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December 1978

Footnotes

1. NSTA Committee on Curriculum Studies: K-12. "NSTA Position Statement on School Science Education for the 70s." The Science Teacher, 38(8), 1971.
2. Ibid.
3. Ibid.
4. Ibid.

NATIONAL WILDLIFE FEDERATION

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Thomas L. Kimball, Executive Vice President

The National Wildlife Federation (NWF) is a publicly-supported, non-profit citizens' organization with more than 4.1 million members and an abiding commitment to environmental education—or as we have historically called it, "conservation" education.

We date from 1936, founded as a result of the first North American Wildlife Conference called by the President of the United States. The purpose of this conference was to stimulate public interest in proper management of our natural resources, especially wildlife. NWF has affiliate organizations in each state (example: the Iowa Wildlife Federation, Inc.) as well as in Guam, Puerto Rico, and the Virgin Islands.

Conservation and the environment are our chief concerns. Besides conservation (environmental) education, we show our interest in the cause whenever we testify in Congress or other forums on pending legislation, or go to court in defense of wildlife threatened by a proposed highway, or acquire choice bald eagle habitat before it falls to the bulldozer, or perform any of a number of other similar activities.

Our education efforts take several forms:

1. Issuing approximately 100 different publications on nature-related topics, usually free in single copies. A copy of our Conservation Education Publications list is also available free by writing to us. In 1977 we distributed 1.47 million of our publications. Over 195,000 individual requests for environmental education materials were received and filled.

   Among our publications, particular attention is called to a popular series known as Environmental Discovery Units. This teacher's guide to ecology contains 24 units (for which a charge is made), with coverage from kindergarten through twelfth grade. Examples of many subjects treated: wind, shadows, genetic variation. The basic philosophy of the units is that learning about the environment is not a process of memorizing but an experience-oriented, experiment-observation-conclusion sort of thing.

2. Annual revision and publication of the Conservation Directory, a comprehensive and inexpensive listing of individuals and organizations concerned with natural resource use and management. One of its main purposes is to expedite communication among people in that field or between the general public and persons in that field.

3. Publication of two periodicals which are very useful to conservation/environment professionals: Conservation Report, a "bible" for those working on environmental legislation, and Conservation News, which covers significant developments in the conservation/environment field. The Report is available to NWF members; the News is sent free on request to all interested persons.

4. Observance of the annual National Wildlife Week. We estimate more than 10 million students, teachers and members of conservation groups took part in the 1978 event and the Federation supplied free posters and other materials described below. The actor, Robert Redford, was honorary chairman and carried the theme, "Wildlife Needs You," to millions more through the medium of television.

   The 1978 Wildlife Week materials, all free with one exception, included two different posters, Education Kits, Students' Kits, Press Kits, and a Leader's Handbook. The one item which was not free: a low-priced slide show. Among contents of the Education Kit were the two posters, Wildlife Week News, and a 16-page Teacher's Guide full of ideas for classroom activities relating to the theme, "Wildlife Needs You."

   This was the 41st annual edition of National Wildlife Week. Each year the program grows both in the number who participate across our nation and, we hope, in the value of the educational materials. A probable avenue of further refinement is development of activities more specifically devoted to the various school grade levels.

The 1979, or 42nd, Wildlife Week, March 18-24, features the theme "Conserve our Wildlife." Typical past themes: We All Need Clean Water (1977), We Care About Wildlife Habitat (1975), We Care About Endangered Wildlife (1974), Learn To Live With Nature (1968), Protect Natural Beauty (1966). The very first theme, in 1938, was "Where To Now?", and the theme poster shows a bird flying over a bleak, burned-out landscape. This problem of habitat is still with us, as the 1975 theme attests. Other themes seem to recur, such as the importance of good water (1954, 1960, 1965, 1977). Each year's theme tries to focus public attention and action on a critical environmental problem.

5. Production of three color magazines (National Wildlife, International Wildlife, and Ranger Rick's Nature Magazine); books on nature subjects; documentaries for television such as "We Can Save the Eagle;" radio spot announcements designed to aid conservation; audiovisual programs such as filmstrips entitled The World of Endangered Wildlife and Discover Wildlife in Your Backyard, and the Wildlife Week slide show, Wildlife Needs You.

   Of our magazines, National Wildlife (received by National Associate members) ended 1978 with a circulation of 827,202 (up 15.4 percent); International Wildlife (International Associate Members) ended 1978 with a circulation of 343,783 (up 8.8 percent); Ranger Rick's Nature Magazine (for children) ended 1978 with a circulation of 826,928 (up 15.8 percent).

6. Publication of books on such topics as backyard gardening and wildlife habitat development, the history of wildlife in America, and camping skills and outdoor photography. Other books, for children, have focused on animals and their habits, range, and problems of survival.

7. Distribution of hundreds of millions of wildlife conservation stamps to homes throughout America. These stamps accurately portray land and water animals and plants. With the help of our Art Director, Roger Tory Peterson, a detailed album is created for each year's stamps, presenting descriptive information about the stamp subjects.

8. Sponsorship of vacation and educational Conservation Summits, Wildlife Camps, and backpacking Environmental Adventures.

9. Conducting the Raptor Information Center, a clearinghouse for information on America's birds of prey, which gets out a newsletter and is developing bibliographies on raptors for the use of scientists and other professionals. The Center also helps sponsor research projects related to birds of prey.

10. Operating a Backyard Wildlife Habitat Program, to encourage individuals to provide food, water and cover for wildlife in their backyards. Over 1000 yards are currently certified in the Backyard Wildlife Program. They are located in 46 states and three provinces of Canada. This program was officially recognized by the American Revolution Bicentennial Administration as one whose participants would enhance the quality of life in America's third century.

11. Maintaining free Nature Trails and exhibits at its Laurel Ridge Conservation Education Center, Vienna, Virginia. Thousands of students and others visit the Center year-round for guided or self-guided walks.

    Seven different interpretive programs are available from which scheduled visiting groups may choose, such as Sensory Awareness, Succession, and Wetlands. In addition to special activities during the walks, the programs include pre-visit activities to prepare the group for what they will see, and post-visit activities to help fix in their minds what they have learned and stimulate them to further study.

    Other ways in which the Laurel Ridge Conservation Education Center has been used include:

    A. Spring and Fall Nature Festivals have been held there regularly (free and public) offering individuals and families programs varying from the life history of wolves, snakes, or birds of prey, to woodcarving, growing herbs, and identifying "safe" mushrooms.

    B. A free Summer Day Camp program has been provided for children. From this experience a guide will be prepared to give guidance to teachers and leaders on managing such programs. It may be noted a guide on how to build nature trails has resulted from our experience at the Center.

    Besides this Center, NWF has acquired the Claude Moore Historic Farm further out in the country (Loudoun County, VA) and has begun to fashion it into a Conservation Education Center.

12. Presenting a National Conservation Conference annually at its Washington Headquarters where leaders of citizens' groups, industry, and government can meet and discuss coordinated conservation action.

13. Participating in teachers' workshops and conferences in cooperation with schools, women's clubs, garden and civic groups, and sportsmen's organizations.

14. Awarding, in 1977, 45 fellowships totalling $99,250 for postgraduate research on such subjects as alligators, falcons, bighorn sheep, trumpeter swans, oil spills, clearcutting of woodlands, and enforcement of wildlife protection laws.

15. NWF is intent upon producing more environmental education curriculum materials to help teachers instruct our youth about wildlife and environmental problems.

Many of the activities listed above are supervised by NWF's Education Division or the Creative Services Division. Another Division, called Resources Defense, performs educational functions of another sort. This Division consists of lawyers, law students and volunteer experts on resource issues committed to solving environmental problems through the use of the law.

The rewards have been significant, with decisions which have: broadened the scope of wetlands protection; curbed the dumping of toxic wastes at sea; turned around major water and highway projects which threatened valuable natural areas; required tighter regulation of strip-mining, oil spills, and off-road vehicles; opened resource decisions to public participation; and saved the remaining refuges of endangered species.

Reflecting NWF policy, the Division proceeds carefully to develop issues of national scope and importance. Every effort is made to resolve problems administratively where possible. Some have been resolved through arbitration by NWF counsel themselves. Some have been resolved in court, and have set strong precedents for environmental protection.

The Conservation Division performs an important role in the overall NWF program. To a considerable extent, it is the "cutting edge" for the organization's efforts to assure that the principles of wise use are considered by executive and legislative branch policy-makers. Because the federal government administers programs affecting so many land and water areas, and the wildlife they nurture and support, the Conservation Division directs its efforts to those who make the laws and to those who carry them out. In all cases, NWF policy is expressed.

This is a big assignment. To carry it out, the Conservation Division has a cadre of well-trained and experienced people. They keep in direct contact with the federal agencies which deal with natural resources: the Departments of the Interior, Agriculture, and Commerce, the Environmental Protection Agency, the Department of Energy, and the Council on Environmental Quality. Another corps of persons report on activities of the Congress, prepare testimony for presentation to Congressional committees, and alert associate members and affiliate leaders when legislative crises occur.

In 1977 the Federation's revenue of approximately $22 million was mainly allocated for conservation education and environmental action (60 percent) and education materials and related costs (18 percent).

From one year to the next, our environmental education activities have continued to expand, and stand now at a peak which we are confident will be but a stepping stone to a series of ever higher peaks.

--Submitted by:

John C. Stone, Director
Education Division

December 1978

THE NATURE CONSERVANCY

1800 North Kent Street
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(703) 841-5300

The Nature Conservancy is a member-governed, non-profit organization incorporated under the laws of the District of Columbia. Its corporate objectives as determined by its membership are:

> Recognizing a dependence on natural lands for environmental stability, for essential scientific inquiry, for wholesome human life, and in fact for the survival of abundant and varied life on earth, the objectives of The Nature Conservancy are (a) to preserve natural areas for biological diversity, for the uses of science, and for the wilderness experience; (b) to preserve open land for conservation of natural features; (c) to restore land; (d) to improve techniques of land preservation by demonstrating to others how to do it well, by studying and trying out new ways to do it better, and by devising standards and priorities for the preservation of natural areas; (e) to advance the cause of natural area preservation in the schools, in private enterprise, in government, and in other countries; (f) to advance the foregoing objectives in cooperation with other organizations having similar and related objectives.
>
> --Article II, BYLAWS

The primary purpose of The Nature Conservancy is to protect natural areas that will help preserve ecological diversity. Protecting samples of wild nature as representative ecosystems is critical to humanity's future. Natural areas are those places of special quality and importance that safeguard rare and endangered plants, animals, and other natural features; the places that represent the best remaining examples of the rich diversity of nature.

Each element of our diverse natural heritage plays a unique ecological role. To completely eliminate any element from our complex ecological system may have irreversible, unforeseen consequences. All life on earth is interconnected in a complex ecological system that may be thought of as our life-support machine. A species may be likened to a bolt, a plant community to a frame member. How many bolts or members can be removed before the machine begins to malfunction; how many before it breaks down? "To save energy cog and wheel," said Aldo Leopold, "is the first precaution of intelligent tinkering." Once any life form is lost, it is lost forever; our failure to save it is irreversible.

The Conservancy's mission—the preservation of ecological diversity—is a three-phase project: identifying areas that are representative examples of the natural landscape and critical to the preservation of

native species and communities; protecting these areas through such means of fee and less-than-fee acquisition, conservation easements, registration, notification, designation, dissemination of information, and environmental impact assessments; and providing stewardship for these areas or assuring that others manage them appropriately and conscientiously. The first two phases are ineffective if stewardship fails. Stewardship is the foundation upon which a natural area preservation program ultimately rests.

The objectives of the Conservancy's stewardship program are two-fold. The primary objective is to maintain areas so that they sustain species, communities, and natural features that make significant contributions to the preservation of natural diversity. The secondary objective is to determine and promote uses (such as environmental education) compatible with the preservation of natural diversity on the preserve. These uses will foster local support for individual preserves and help the general public recognize the values of natural diversity preservation. Thus, encouraging proper public use of Conservancy preserves is an essential part of stewardship. Without the support of people in the local community, a preserve cannot be protected. Environmental education can be particularly important in conjunction with community involvement and appreciation of nature.

Historically, local Conservancy volunteer groups have created their own environmental education programs through the use of local community educators and volunteers. But until recently, the Conservancy lacked a national environmental education program. In 1977 the Conservancy received a grant to develop a national environmental education program that would enable Conservancy volunteers to work with local schools in establishing preserves as study areas.

A second grant made it possible to test, evaluate, and revise the environmental education program. The summer of 1978 was set as the deadline for completing program materials and for implementing the program on a nationwide basis. The program is called the Student Stewardship Program.

The Student Stewardship Program involves up to twelve highly motivated secondary school or college students from a school near a preserve in a year-long program of service and education. The students follow a carefully designed plan in which they carry out the following activities:

Using Maps
Preparing a Preserve Base Map
Understanding A Deed
Survey Preserve Boundaries
Establish Photo-point Monitoring
Vegetative Analysis—Trees
Stand Tables and Quadrat Maps
Developing a Geologic Overview
Testing Soils
Interviewing Preserve Neighbors
Using Community Resources
Preserve A Preserve Brochure

Winter Investigations
Mid-year Report
Water Studies: Biotic Index, Flow,
Sedimentation, Suspended Solids
Small Mammal Populations
Spring Wildflower Inventory
Inventory of Ground Cover
Shrubs and Sapling Inventory
Prepare Final Report

The program is flexible so that specialized research can also be conducted, and is ongoing so that data collected by the students in each successive year can be used as an aid by Conservancy Preserve Committees in the stewardship of their preserve.

The program has proven highly successful on the four preserves where it was tested in Ohio. Program activities (such as interviewing preserve neighbors) create increased exposure for the Conservancy, which, in turn, attracts new members and land donations, and strengthens Preserve Committees. Most important, however, student activities draw community attention to the Conservancy's sanctuary and to why it is being preserved. The support and attention of preserve neighbors and community residents is critical to protecting a preserve, particularly in safeguarding an area from trespassers.

Students learn and use the skills of terrestrial and aquatic ecology. They develop attitudes, assume responsibility, work with local community resource people, and learn skills that will serve them throughout their lives. The Conservancy's primary need for an environmental education program is similar to that of any public or private land management agency. A group of individuals or even a corporation cannot protect our parks and preserves without the help of people who understand the importance of natural area preservation. If we can instill in youth the importance of natural area preservation through the Student Stewardship Program, we can help insure stewardship of America's natural heritage in the next generation.

--Submitted by:

Tamra Peters
Director of Volunteer Programs

June 1978

THE NATURE CONSERVANCY

STATEMENT ON ENVIRONMENTAL EDUCATION

Objectives of the Conservancy's stewardship program are twofold. The primary objective is to maintain areas so that they sustain species, communities, and natural features that make significant contributions to the preservation of natural diversity. The secondary objective is to determine and promote uses compatible with the preservation of natural diversity on the preserve, which will help to foster local support for individual preserves and recognition by the general public of the values of natural diversity preservation.

Conservancy volunteers, staff and the Board of Governors are in agreement that the organization's resources must be used to preserve biological diversity and, therefore, the Conservancy should not divert its resources into the environmental education movement. However, encouraging proper public use of Conservancy preserves is an essential part of stewardship; a part in which environmental education can play a critical role. The Conservancy's interest in an environmental education program corresponds with the program's ability to accomplish these four objectives:

1. Support of local citizens is necessary to insure protection of a preserve. Citizens must understand why natural area preservation is important before they will lend support to protect a preserve. Therefore, an environmental education program must convey the Conservancy's purpose to citizens in the community as well as to the teachers and students involved in the educational program.

2. Environmental education programs must provide strong evidence of use of Conservancy preserves for the public's benefit.

3. Environmental education programs must be structured to provide controlled use of a preserve to protect the preserve's natural diversity.

4. Environmental education programs should encourage support of the Conservancy by generating new membership, donations and publicity.

The Student Stewardship Program was designed specifically to accomplish these objectives and does even more. Specifically, the Student Stewardship Program:

-strengthens Conservancy Preserve Committees.
-generates data to aid Preserve Committees in stewardship of the preserve, e.g., soil compaction test.
-draws the attention of the community to the Conservancy preserve and to the program.

-allows use by responsible, highly motivated high school and junior college students, rather than large groups of students who may harm a fragile natural area.
-develops student's knowledge about the importance of protecting biological diversity and what is involved in being a preserve steward.
-provides standardized national data on the biological resources of preserves, and community attitudes toward the preserves and The Nature Conservancy.

SOIL CONSERVATION SOCIETY OF AMERICA

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Founded in 1945, the Soil Conservation Society of America (SCSA) is an international not-for-profit educational and scientific organization dedicated to advancing the science and art of good land use. Most of its 15,000 members are engaged professionally in some aspect of natural resources conservation and management.

As reflected in its objectives, the Society's environmental improvement concerns and competencies extend beyond soil to include good stewardship of all natural resources:

1. Support the several arts, sciences, and professions that have to do with conservation of renewable natural resources.

2. Sponsor and carry out programs to help bring about a better understanding of the need for conserving renewable natural resources to the end that conservation becomes an intimate part of the thinking, doing, and living of city and country people alike.

3. Encourage research and demonstration that will contribute toward a better understanding of the means by which more effective conservation methods can be developed and put into practice.

4. Encourage high ethical standards on the part of all those who are professionally engaged in the furtherance of improved use of land and water.

5. Work with other conservation agencies and organizations in support of their conservation efforts.

6. Work for the early adoption of a long-range, country-wide land and water policy as a guide to all agencies, organizations, and individuals in their renewable resource conservation activities.

7. Recognize noteworthy achievements by individuals, agencies, and organizations that have assisted in planning, developing, and carrying out resource conservation programs.

8. Publish and encourage publication of information that will aid in the development and adoption of improved concepts and practices in conservation.

9. Encourage and assist with the development of improved educational programs on conservation in elementary and secondary schools, in colleges and universities, and in adult education fields.

10. Inspire public recognition of the urgent need for a complete country-wide inventory of our renewable natural resources.

11. Strive for a full appreciation and understanding of the importance of conservation of renewable natural resources on a world-wide basis.

12. Augment the concepts of conservation so they include not only better use of soil, water, grass, forest, and wildlife resources in the economy of the world but aesthetic and human values as well.

SCSA has 104 operating chapters in the United States, Canada, and Puerto Rico, as well as 54 student chapters located on university campuses. It has members in more than 80 countries. Substantive technical program thrusts are initiated and supervised by the governing council of the Society and by eleven resource conservation divisions. The environmental conservation education division devotes all its energies specifically to environmental education, but all the resource divisions give attention to education.

An integral part of Society concerns and programs has always been planned environmental education as one effective tool in human efforts to wisely develop the earth's resources and enhance the quality of life while safeguarding the ecosystems upon which all life ultimately depend. In education endeavors, SCSA emphasizes teaching/learning about and from the environment, beginning in kindergarten, through post graduate studies, and including professional and technical training.

Active programs, as well as support and assistance for environmental education at state and local levels, are carried out by nearly all the 104 SCSA chapters. By personal inclination and as part of their professional responsibilities, many members disseminate as widely as possible specific resource conservation and management information to the public, to local and state government agencies, and to citizen organizations. Such activity leads directly to involvement in environmental education. Individual members frequently serve as technical advisors in helping elementary and secondary schools design environmental study programs, community improvement projects, and outdoor classrooms or learning laboratories. They help develop curriculum materials at all levels and often serve as guest lecturers for college and university courses in such subjects as soil science, landscape design, forestry, range management, wildlife management, and environmental education. They serve on environmental education advisory committees, on editorial boards for conservation and environmental education magazines, in speakers bureaus, and as resource experts for local, state, and national conferences on environmental issues.

They design and conduct youth conservation workshops and assist with countless inservice teacher workshops. A Society member served as one of the United States delegates to the Intergovernmental Conference on Environmental Education, conducted in 1977 in the USSR under the auspices of Unesco and UNEP.

SCSA actively participated in planning the formation of the Alliance for Environmental Education and became a founding affiliate of the organization. Indicative of the Society's interest in education is the fact that in 1974 it held its annual meeting jointly with the Conservation Education Association.

With partial support from a grant provided under the Environmental Education Act, the Society prepared and published Environmental Quality and the Citizen: A Teaching Guide for Adult Education Courses Related to the Environment. To help chapters and other organizations conduct effective adult education efforts, the Society produced the booklet Planning and Organizing an Adult Environmental Education Program.

National conferences on specific aspects of natural resource policy, use, and management are organized and conducted by the Society. Proceedings of those conferences are widely used as reference materials in environmental studies programs. A special conference on land use policy was held in 1972 and the proceedings were entitled National Land Use Policy: Objectives, Components, Implementation. In 1977 a national conference on land use planning resulted in the publication Land Use: Tough Choices in Today's World. Issues covered included competition among different uses for land, federal and state involvement in land use planning, and the roles of citizens, elected officials, developers, and planners in land use planning. Other national conferences that resulted in production of substantial conference proceedings volumes were Land Application of Waste Materials, Soil Erosion: Prediction and Control, and Conservation Tillage.

The annual meetings of SCSA are planned around central themes relating to timely environmental issues. Proceedings of those meetings serve as accurate references for many years. Recent proceedings volumes include: Resources for Food and Living: Land, Water and Energy (1978); New Directions in Century Three: Strategies for Land and Water Use (1977); Critical Conservation Choices (1976).

The Journal of Soil and Water Conservation is published bimonthly by the Society. Published periodically, reprints of several articles on the same subject are often used as references in college and university courses. Titles of recent reprints include: "Managing Floodplains to Reduce Flood Hazard," "A Primer on Agricultural Pollution," "Retention of Agricultural Land," "A Primer on Planning," and "The World Food Situation: Implications for Land Resource Conservation."

More than 20 years ago, SCSA published the first of a series of educational cartoon booklets designed to help instruct children in conservation in fourth through sixth grades. Eleven different booklets, each with an appropriate teacher's buide, are now available. The booklets are revised as needed. Some 20 million copies have been distributed.

Titles in the series include:

Plants, Animals, and Man—An Ecology Story
The Earth: Our Home in Space
Plants, How They Improve Our Environment
Working Together for a Livable Land
Food and the Land
Help Keep Our Land Beautiful
Making a Home for Wildlife on the Land
The Wonder of Water
The Story of Land
Pioneers of Conservation in America
The Idea That Worked: America's Conservation Districts

Among other society publications produced to support environmental education are Careers in Conservation, Resource Conservation Glossary and Conservation Science Fair Projects.

A unique, largely educational program conducted by the Society, called Managed Natural Areas, is a nationwide effort to acquaint people with the value of natural vegetation for conservation work, landscaping, beautification, recreation, and environmental improvement. Available for education and research purposes after being evaluated and certified by the Society, are more than 180 sites in 31 states and one Canadian province. A certified Managed Natural Area may be as small as the two-acre cemetery in Sandytown, Illinois, where 47 kinds of native prairie plants grow, or as large as the 70,000-acre Valentine National Wildlife Refuge in Nebraska.

A Managed Natural Area must be in use and under conservation management. Criteria for Society certification specify that native species of plants characteristic of the location must predominate on the site. A list and description of Managed Natural Areas is available from Society headquarters.

In its Scholarships in Conservation program, the Society has awarded $139,000 to 260 recipients during the past 14 years. For the 1979-1980 school year 24 scholarships of $750 each are to be awarded. Two scholarships are given in each of the Society's nine regions that cover the United States and Canada. Six scholarships are awarded at large.

The scholarships in conservation are intended to encourage qualified students to acquire technical competence through education in some phase of conservation and to pursue a career in conservation. A scholarship applicant must have successfully completed two years of study in an accredited college, be an undergraduate enrolled in a natural resources conservation or agriculture-related curriculum, and be working toward his or her first B.S. degree. Journalism, environmental education, and geography are among the many courses of study in which previous scholarship recipients have been enrolled. Scholarship applications can be obtained from the Society's headquarters office.

The Society also annually awards the Donald A. Williams soil conservation scholarships. Two $1200 scholarships will be awarded in July 1979. Applicants must be SCSA members currently employed who want to improve their technical or administrative competence in a conservation-related field through course work at an accredited college or through a special study program.

Though fine publications and nationwide programs provide necessary support, they do not accomplish very much environmental education in and of themselves. Enduring environmental education takes place in local communities as the result of hard work by creative leaders who seek to serve the real environmental needs of people. It is through its chapters and dedicated volunteers that the Society makes its best contributions to effective environmental education.

Two environmental education projects in Washington, D.C., were initiated through the efforts of SCSA Washington chapter volunteers. The USDA Graduate School Field Studies Program, sponsored by the Audubon Naturalist Society of the Mid-Atlantic States, was organized by an SCSA member more than 20 years ago. Throughout the years, SCSA members have served as instructors in the various field study courses attended by government agency employees, teachers, and citizens interested in learning more about wildlife and natural resources.

Beginning in 1965 with the stimulation and help of Society members, an outdoor classroom and learning laboratory was developed at the Francis Scott Key Elementary School in the District of Columbia. The school program won a series of citywide environmental education awards, including one sponsored by Mrs. Lyndon B. Johnson. The efforts at Key School served as a pilot for environmental studies activities throughout the city in which Society members played an important role.

Recently, the Washington Chapter established the Thomas L. Ayers Outdoor Classroom Awards Program, in honor of a Society member who spent countless hours working with public schools on environmental education programs in Washington. Under that program awards are made each year to public schools that have made the most progress in environmental studies. The chapter also gives leadership and support for a teachers workshop in environmental studies through which college credit can be earned under a cooperative arrangement with the University of the District of Columbia.

In many states, SCSA chapters cosponsor or conduct teacher institutes and student workshops in conservation and environmental studies. For example, the Georgia chapter has conducted a week-long student workshop enrolling more than 100 youth each summer for the past 17 years. Local businesses, soil conservation districts, civic clubs, and other groups provide scholarships for the young people to attend the workshop. Instructors, counselors, and consultants for the workshop come from colleges, natural resource agencies, and nongovernment conservation organizations to provide specialized information and help youth develop experiential learning skills.

The Georgia teacher institutes, held at different colleges and universities, provide both graduate and undergraduate credit in environmental studies. Special workshops on the use and development of outdoor classrooms are featured at some institutes. Scholarships for teachers to attend scheduled institutes are provided by community organizations and groups, many of them by local garden clubs.

In Dutchess County, New York, Society members provided another kind of environmental education for members of the Conservation Commission, which had been given responsibility for planning and implementing a variety of community programs that would affect use of natural resources. Training sessions in preparing resource inventories, use of soil maps and soil survey information, and other techniques for analysis of community environmental needs were conducted for the Commission members.

The Florida chapter prepared a model soil erosion and sedimentation control ordinance now being adapted by several county and municipal governments to help prevent erosion and sedimentation problems related to various land uses. Work with local government agency officials in explaining the model ordinance provides some excellent opportunities for education of elected officials.

More than a decade ago, the California chapter members took the lead in putting together a coalition of groups that eventually brought about passage of the state environmental education act.

West Virginia chapter members sponsored and helped develop a resource education project at the high school in Buckhannon. There, after thorough research, students planted a living tree exhibit on the school site to demonstrate the differences between true pines and trees such as hemlock, cedar, and larch. Identification plaques for this "All Pines Are Not Pines" living exhibit were designed and made by students at the vocational-technical high school in Ripley, West Virginia.

The Iowa and Virginia chapters provide substantial sums for scholarships for teacher training in environmental education conducted by accredited colleges and universities.

Though recent polls of citizens reveal a continuing commitment to environmental protection, many people are disenchanted with the idea of easy answers and off-the-cuff solutions to environmental problems—and rightly so. The public knows that environmental quality and natural resource problems and potentials must be dealt with rationally. Competition for use of natural resources will continue to increase as the world's population continues to climb. It is through education in its myriad forms that the leadership must come for adaptive response by all citizens to the resource-constrained economies that North Americans will face in the future.

That scenario points up the great need for more intensive and extensive environmental education efforts that enable each citizen to cope intelligently with the ecological, economic, social, personal and

political decisions required for harmonizing human activities with ecosystem processes. SCSA fully intends to remain an active participant in environmental education at the local, state, and national levels. Current Society efforts will be continued with special attention given to stimulating and supporting environmental education efforts of chapters, to cooperative interaction with other organizations and groups engaged in environmental education, and to assisting the Alliance for Environmental Education in implementing the recommendations emanating from the From Ought to Action National Leadership Conference on Environmental Education.

--Submitted by:

Walter E. Jeske

December 1978

UNITED AUTO WORKERS*

Conservation Department
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Delegates who attended the last Constitutional Convention will recall visiting this department's exhibit, *Something New in Energy*, which reflected the Union's concern in 1974 about the energy crunch and its economic-environmental implications—heavy layoffs of UAW members, high utility rates and the need to develop environmentally sound alternative sources of energy. Because these new priority concerns are of a continuing nature, the department, since the last Convention, has made a somewhat dramatic departure from its usual practice of concentrating its time and efforts *solely* against air and water pollution. In the last three years, we have also assisted in implementing programs and projects intended to lead the way in finding solutions to our energy problems.

We are hopeful government and industry will follow the leadership role displayed by UAW through our union's efforts on these innovative energy conservation-environmental programs.

Solar Energy Projects at Black Lake

In 1975, we installed several solar energy devices at the Walter and May Reuther Family Education Center on Black Lake in Onaway, Michigan. The Pioneering aspects of this prototype equipment resulted in extensive coverage in the news media all over the country. That in turn generated hundreds of requests for additional information from a broad cross-section of UAW as well as non-UAW people. To meet these requests the Department had to develop several educational vehicles. These included:

- -workshop teaching outlines
- -pamphlets
- -technical booklets that explain in detail the inner workings of our solar equipment
- -bibliography listing sources where do-it-yourselfers can write for additional Alternative Energy information
- -35mm color slide presentation with narrative script which, in 15 minutes, shows the exciting results of our Union's solar energy efforts at Black Lake.

**This report, originally presented by Vice President Odessa Komer to the 25th Constitutional Convention of the United Auto Workers in Los Angeles in May 1977, is reprinted here at the request of the UAW Conservation Department.*

Many presentations have been made by the Department staff at UAW Local Unions, CAP Councils, Collective Bargaining-Skilled Trades Councils and at regional schools and scholarship programs held at Black Lake.

Outside organizations, impressed with what our Union is doing at Black Lake with solar energy, submitted many requests for UAW leaders to speak about the solar demonstration projects at their conventions and conferences. Most of these requests were accepted because we want to demonstrate to the nation that solar energy isn't just "far away, pie-in-the-sky," as the big oil and utility companies would have the public believe.

An exhibit was constructed by the Department in early 1976 to aid UAW representatives during their appearances at these meetings. The exhibit was first displayed at the United Nations World Environmental Habitat Conference, held in Vancouver, British Columbia in June 1976. It was a big hit there. Invitations were also accepted from the following:

July 25, 1976	Energy Conference—University of Akron
August 28, 1976	Jacques Cousteau's Quality of Life Midwest Conference—Milwaukee
September 20-23, 1976	National Conference on "Environmental Education and Citizenship Responsibilities for the Common Good," Kansas City
October 4-8, 1976	North American Seminar on Environment, St. Louis
October 17-20, 1976	National Convention of American Public Health Association, Florida
February 12, 1977	Cousteau Society Involvement Day, Houston, Texas

Utility Company Practices

Building support for the UAW Energy Program, which calls for fair utility rates and clean sources of energy production, quite naturally led us into active opposition to the practices and policies of many of the utility companies. The Conservation Department, in joint sponsorship with Florida State UAW-CAP, conducted three week-end education training seminars in late 1974 and January 1975 for Local Union and Retired Worker Council leadership to prepare them to more effectively advocate increased public control over Florida utilities. These efforts led to UAW sponsoring a state-wide Conference on Utility Rates and the Environment in Florida in February 1975, with 300 representatives of various public interest organizations participating. Many complimentary statements were made by non-UAW people following their attendance at that conference, as reported in the prestigious *Florida Conservation Digest* of March '75:

> ...The majority agreed to organize coalitions along the lines of UAW locals, who were well respected, if not loved, for their ability to organize effectively.... The UAW has a good cause and offers a terrific source of help to our public interest causes.... Let's get with it, we need all the help we can get and these UAW people are beautiful.

Statewide Coalition Organized in Indiana

The Conservation Department, in cooperation with the Indiana UAW State CAP Council, organized and hosted a two-day Environment-Utility Conference in Indianapolis May 31-June 1, 1975. The 500 delegates attending from organizations and groups throughout Indiana used the conference as the springboard to start the Citizens Energy Coalition (CEC), the first such broad-based organization to be established in the Midwest.

UAW Efforts Continue

The following examples listed were selected to reflect the wide variety of actions, programs and projects carried out by both departmental staff and Local Union leaders:

-Issued public statements and spoke before various Pollution Control Commissions in several states regarding air quality and water discharge permit programs.

-In Region 9, played a very active role in the passage of a bond referendum enabling the acquisition of Green Acres lands.

-Prepared statements and testified in support of safety measures at nuclear power plant hearings in Michigan.

-Florida State CAP testified and successfully lobbied against the Florida Barge Canal.

-The Department co-sponsored with Detroit inner-city community organizations a two-day clean-up of the Harding-St. Clair Canal.

-Testified and successfully promoted legislation that resulted in the Sleeping Bear Dunes acquisition as a National Park.

-Region 6 UAW staff and local leaders participated in a Jobs-Environmental Statewide-Conference in Santa Monica, California.

-Department organized and co-sponsored with Southeast Michigan CAP a community action conference in support of increased development of public transportation.

-Region 6 hosted a conference on mass transit needs in California.

-Region 2, in cooperation with the Conservation Department, participated in a Cleveland Jobs-Environment Conference.

-Region 3 CAP supported enactment of a law banning phosphates in detergents.

-Indiana CAP leaders worked closely with other state environmental organizations in successfully protecting Indiana Dunes park lands from industrial development.

Efforts in Canada

-The Conservation Department has been active in the Ontario Federation of Labour Conservation Committee, which sponsored conferences in Hamilton at McMaster University, in Peterborough at Trent University and in Sarnia at Lambton Community College on various aspects of the environment facing workers, their communities and their jobs.

-The Conservation Department was also involved in the energy report to the Canadian UAW Council which resulted in the adoption of a UAW policy on energy for Canada.

-In the Windsor, Ontario area, a proposal for a commercial development threatened to reverse a city council policy of preserving the riverfront for park land. However, various citizen organizations, along with the UAW Conservation Department, successfully protested the proposal, thus preserving this natural resource for the enjoyment of all the people.

Recognition of UAW Environmental Programs by Others

Actions such as those listed above, together with many additional testimony-lobbying efforts on similar issues both at the national level and in the states and provinces, caused these national magazines to react favorably:

National Parks & Conservation Magazine, April '75, singled UAW out for praise in helping protect the Everglades and Big Cypress in Florida.

Sports Illustrated, December 20-27, 1976, credited UAW with helping save the Michigan Environmental Protection Act from legislative attempts to emasculate this model law.

Reconciling Conflicts

The heavy unemployment which occurred during the last three years tended to make many unions and community organizations oppose programs supported by energy conservationists and environmentalists which, they felt, could possibly threaten economic growth and employment. The conflicts and emotions surrounding a few controversial issues had blinded many leaders of these organizations, which had formerly cooperated, and kept them from working together on the many more issues and programs they had in common.

To help reverse this unnecessary and counter-productive alienation between the groups, the Conservation Department organized and hosted a week-long conference at the UAW Family Education Center at Black Lake in May 1976. Over 300 national and community leaders from

labor, environmental and urban organizations in the United States and Canada participated. The success of that conference received much public recognition. More importantly, the relationships developed there have led to "mini" Black Lake Job-Environment-Justice programs and projects being conducted by conference participants after they returned home to their states and provinces.

Education Efforts

Our staff continues to offer and conduct conservation-environmental workshops and general assembly sessions at regional schools. Such sessions were sponsored in Regions 1B, 2A, 3, 5, 8, 9, 10 and Canada. We also conducted many workshops for scholarship participants at Black Lake. We are presently scheduling these programs into regional schools for this summer and fall.

The Department also assisted the Education Department in drafting energy-conservation-environment discussion materials used in the Summer School CORE Programs. The Department also conducted classes for the School of Natural Science at the University of Michigan.

Government Grants

The success of several of the programs, projects and activities mentioned in this report was due in part to $135,000 received from the U.S. HEW Department since 1974. This funding was obtained by the Conservation Department when we submitted three grant proposals outlining our departmental need to acquire technical and consulting assistance to better provide quality programs to improve the environment.

WESTERN REGIONAL ENVIRONMENTAL EDUCATION COUNCIL*

California Department of Education
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Scope

The major thrusts of the Western Regional Environmental Education Council (WREEC) are elementary and secondary education programs and activities at the state level as conducted by state departments of education and resource management agencies and coordination of such programs on a regional basis. Secondary target areas include higher education, particularly in the area of teacher training, and informal public education programs in cooperation with appropriate community agencies. Since one of the purposes of the organization is to strengthen and improve the skills of members, the organization also serves to educate state governmental employees.

Purpose

As originally written, the USOE Title V, Section 505 project proposal stated the purposes of the project to be:

- -Helping each state department of education from the 13 member states develop an environmental education program which was to include roles, responsibilities and administrative mechanisms.
- -Helping each state develop an environmental education plan for its principal resource management agency.
- -Working with the member states to set up formal and informal working relationships between the education and resource management agencies in each member state.
- -Setting up linkages which would lead to informal and formal cooperative and coordinative activities among the 13 member states.

As the project progressed, most of the member agencies and the group met these initial objectives, so another set gradually evolved. These included:

**This report by Rudolph J. H. Schafer is an abridgement and update of a 1977 case study, written by Mr. Schafer, which appeared in Environmental Education in Action-I: Case Studies of Selected Public School and Public Action Programs, published by ERIC/SMEAC.*

-Providing programs and materials through the Council and in cooperation with other agencies for distribution and use in the 13 western states.

-Setting up working relationships with state agency groups in other regions of the country, federal agencies, and private conservation associations.

-Providing educational opportunities for members through which they might strengthen and improve their skills.

-Exchanging materials and information, expertise, and state level programs and activities for the benefit of the members.

Funding

WREEC began through an informal exchange of letters and phone calls among state level environmental education personnel initiated by Rudy Schafer, Environmental Education Coordinator for the California Department of Education. This exchange resulted in the calling of a meeting which was held in San Francisco in November of 1970. The California Department of Education provided some financial assistance to set up the meeting, and state travel funds enabled delegates from a number of western states to attend. The Ferguson Publishing Company also provided financial assistance for this first organizational meeting.

In June of 1971, a $150,000 grant was obtained from the U.S. Office of Education through ESEA Title V, Section 505, to fund a three-year project based on the objectives stated above. The grant was to provide travel funds for two representatives from each of 13 western states, permit the funding of various projects and activities the group might wish to conduct, and to cover administrative and other project-related expenses of the sponsoring state, California. Later, the project was rewritten to run for four years with no increase in the overall funding. The federal project was completed in June, 1975.

In 1973, a non-profit corporation was set up to enable the organization to continue its operations after the federal project expired. Members and associate members pay $10 per year for membership in WREEC, Inc. Additional funds are obtained through projects the organization conducts for various organizations. Additional funding sources are being sought to enable the organization to continue operation.

Target Audiences

The California experience was typical of that in many of the western states. The primary interest in conservation and environmental education centered in the state resources management agencies. For some time they had realized that all successful resource management and environmental improvement programs and activities were very much

dependent on informed public support. For this reason most such agencies have public information and education functions, which in most cases involved dealings with schools. Since most resource agency public information officers are not trained teachers, their effectiveness has sometimes left something to be desired.

The education community, including state departments of education, does not usually place a high priority on environmental education. In the case of California, the Department of Education did not have a full-time professional staff member working in this area until 1968, although the Resources Agency and the Department of Fish and Game both had full-time education staff members since the late 1950s. Since 1968, a push for requiring environmental education in the schools, the full-time Department of Education staff position, even program funding, were strongly supported by the Resources Agency.

Ideally, a state environmental education program should be a cooperative venture including both the state department of education and the resources management agencies; if possible, it should relate to similar projects and programs in neighboring states. This was the concept upon which the WREEC project was established. Thus, the primary target groups became state departments of education and resource management agencies of the 13 western states.

History

In November of 1970 a meeting of state-level personnel from departments of education and resource management agencies having responsibilities in the field of conservation and environmental education was held in San Francisco. Seven states, several federal, state and national resource management agencies, and the United States Office of Education were represented.

At this first organizational meeting, it was determined that regional cooperation in conservation and environmental education would be of value to the western states, and an ESEA Title V, Section 505, project was developed to facilitate such cooperation.

Activities

Since its inception, WREEC has been involved in a continuous series of activities. Among them have been:

1. Frequent conferences, including:

July 1971	San Francisco
January 1972	Tucson
June 1972	Seattle
February 1973	Santa Fe
August 1973	Jackson, Wyoming
January 1974	Sparks, Nevada
July 1974	Portland

January 1975	Honolulu
July 1975	Snowmass, Colorado
February 1976	San Francisco
July 1976	Boise
August 1977	Helena
April 1978	San Francisco

The primary purpose of the conferences, as of all WREEC activities, is to promote development of stronger working relationships between representatives of state education agencies and state resource management agencies. This is accomplished by involving all participants in joint workshop and field activities, utilizing "outsiders" such as representatives of federal agencies, higher education, and business and industry as resources where appropriate. The payoff is, of course, in terms of improved educational opportunities for children.

Much emphasis is devoted to group projects, such as those described below.

2. Development, with funding support and guidance from American Forest Institute, of Project Learning Tree, a K-12 supplementary curriculum which was organized by WREEC, piloted in WREEC member states, and is currently being disseminated nationally.

3. Sponsorship, with the Alliance for Environmental Education, of the July 1975 Snowmass Conference on Environmental Education.

4. Participation in the development of Energy and Man's Environment (EME), an energy education program sponsored by power companies in the Pacific Northwest.

5. A number of publications, including:

   Resources Guide, developed by WREEC cooperatively with Essentia, at Evergreen State College;

   Use This, developed with Essentia;

   Environmental Education Task Cards, developed by the Lander, Wyoming, School District;

   Encounter with the Northwest Environment-Natural and Urban, developed by Washington State Department of Public Instruction;

   Satisfice, developed by Washington State Department of Public Instruction;

   Environmental Education in the Western States, 1971 and 1974 editions, developed by California State Department of Education.

Present Activities

As of this writing (June 1978), WREEC is alive and well and continuing its service to its members and the education community. Current programs and activities include:

- -Providing technical assistance and coordination services for Project Learning Tree.

- -Developing materials, programs, and activities on energy conservation. A 1978 Energy Watch Calendar was produced by WREEC members in cooperation with state departments of energy and education in Oregon, Washington, and Idaho. The calendar was tied in with the national Sun Day observance. A 1979 version will be produced and the project expanded into California in cooperation with the California Energy Education Forum.

- -Participation in national affairs through membership in the Alliance for Environmental Education. WREEC members participated in the National Leadership Conference held in Washington, DC in March of 1978, and will be involved in the various programs developed at the Conference.

- -Exchanging information and assistance on state and local programs. This is perhaps our most important function. Programs, materials, and activities are frankly discussed, and advice and assistance offered. Most members find this service quite valuable.

WREEC meetings continue to be held twice a year in various member states. Regular membership is limited to state level program directors, but associate members are accepted. The current president of WREEC is Cliff Hamilton, Oregon Game and Fish Department.

Evaluation

At the last official meeting as a federal project, WREEC members completed an evaluative questionnaire on the project. Some of the information gained through this activity is summarized below.

Did the WREEC project help you develop a stronger state program?

All representatives agreed that their state program benefitted from the participation in the WREEC project. The benefit most often cited was the exchange of materials, information and expertise. In one case, the WREEC project is credited with keeping a state program alive when consideration was being given to dropping it. A few of the mini-grant projects were of substantial and direct benefit to individual states. Several participants indicated that one of the most significant benefits to the program was in setting up working relationships between resource management and education people. In some cases, the two state representatives had never met prior to the WREEC project!

Did the WREEC Project result in better relationships with other states?

A number of cooperative projects were cited. Most of these were informal and ad hoc. Members felt that the one-to-one working relationships developed through WREEC were most beneficial. These relationships resulted in considerable informal cooperation and mutual assistance and will certainly continue into the future.

In your opinion, how successful was the mini-grant program?

In some cases the mini-grant programs were of great benefit to the recipient state. Most members felt, however, that the mini-grant program was not really very effective on a regional basis. One respondent felt that some states participated only in the hope of obtaining money. Council publications, Use This, Resources Guide, and Satisfice, were cited by most members as our most successful and useful products. In the opinion of the project director, it was a mistake to spend money on projects until the Council was a solid working unit.

Did the WREEC Project help you become more effective in your work?

Opportunities for individual growth were cited by most members as the most significant benefits of the program. Several respondents, particularly those from resource management agencies, stated that the WREEC project was the only opportunity they had for in-service training for their jobs. Nearly all respondents cited several specific ways in which their job effectiveness had increased through the project.

Of what benefit was WREEC in helping members learn about and participate in activities outside the region?

Most members benefitted from the information received through representatives from federal agencies, the Alliance for Environmental Education and cooperative activities with other states, but no significant involvement with other regions is cited. "Good to have the information, but I have enough to do at home" seemed to be what most participants were saying. Project Learning Tree was seen as perhaps the most significant development having national significance. Members felt that the project represented a new and innovative way of educators and the private sector working together for the benefit of students. At the July, 1976 meeting, WREEC members expressed an interest in participating in the proposed national network of state environmental education coordinators, but strongly urged that resource management people be involved in the program as well as educators.

In what ways did WREEC fail to meet your expectations?

"The project was slow in getting started, too much time spent in rabbit chasing." "I didn't find any magic answers, but perhaps

there aren't any." "Project would have been better if all states had cooperated fully and sent the same representatives each time." "Too much time spent with outsiders and special interest speakers; more time should have been spent working with the basic member group."

Do you feel that the organization should continue?

Strong approval was expressed for Counci continuation, and several specific ideas for funding offered. Most felt that a good working group had evolved, and that it is capable of further progress. Several members noted that they would sorely miss the opportunities to obtain information and materials on programs. For many WREEC members, the meetings were their only out-of-state environmental education travel opportunity. Outsiders have also expressed the opinion that WREEC should continue. "This is just too good an organization to see die," one representative of the forest industry commented.

Comments of the project director

In the opinion of the project director, the WREEC project was a success and the federal funds well spent. For a handful of members, the project was their big opportunity to learn and develop effective programs in their states. Our most important accomplishment was what we did for members—helping them gain information, develop materials, gain expertise, and improve their work-related skills.

Project Learning Tree may be considered a major success too, for it piloted a new method of materials production for industry, as well as an effective means of getting these materials into the schools.

Some of the other WREEC "products" were of value, some not. The publications, Use This, Materials Guide, and Satisfice were particularly valuable. Several of the mini-grant projects were of significant value to their states only. Most did not benefit the Council as a whole.

Getting the group together as a working organization took considerable time and could have been handled better. Most groups go through three stages in evolving into a working unit. First, is the "I" stage in which each individual is anxious to let others know who and how important he is. Next comes the "you" stage. Group members began to listen to and understand others in the group. Finally, but not always, comes the "we" stage in which the group of individuals becomes a solid working unit.

It took four meetings and nearly two years for WREEC to become a solid working organization, but it did happen, and everyone knew it. Perhaps the process could have been speeded up. Certainly the first meeting in San Francisco with a lecture by Dr. Brandwein and the Phoenix meeting with representatives of federal agencies making a pitch for their various programs were inappropriate—to say the least.

First priority should have been given to getting a group rapport going. The outside input should have come after this was accomplished.

The diversity of individuals was another problem. The education representatives had for the most part advanced academic degrees, while several of the resource agency representatives were field men who had worked their way up through the ranks. At one point, members requested that the two groups meet separately so that they could consider specific problems in their areas of expertise. It took time to build up a trust relationship between the two groups, but it did happen.

Fortunately, this strong working relationship continues.

Of course, Project Learning Tree could not have been accomplished without this strong working relationship. AFI representatives attended several meetings as observers until it was clear to them that they could depend upon the group to produce something worthwhile.

This need for development as a working group before any real progress can be made points up a problem in initiating similar groups. Someone must fund the "breaking in" period and results cannot be guaranteed. At one point, a request for private funds to support WREEC during its developmental stage was greeted with the comment, "We just can't see sponsoring an annual reunion of bureaucrats."

It would have been difficult to have run the project without outside funding. Out-of-state travel policies vary from state to state and time to time, and it would have been nearly impossible to get the same group together twice a year for four years if we had been unable to cover travel and per diem. Perhaps this is an important role for the federal government to consider—facilitating interstate projects by providing travel and other meeting expenses. Certainly much can be done when groups such as WREEC can work together on a long-term basis.

WREEC had an impact on the national environmental education scene through the Snowmass Conference and the Alliance for Environmental Education. Many Westerners do not see themselves as part of the far-off Eastern scene, and this participation was useful for many of them. Although efforts to establish better working relationships with the Office of Environmental Education were unsuccessful, the WREEC project did have an effect on other USOE and federal programs in general. The working relationships which developed between the federal and state people at Snowmass was a most significant accomplishment.

In conclusion, it may be said that the WREEC project, despite some minor flaws, was a worthwhile activity which resulted in some real accomplishments for the environmental education programs in the Western states. The fact that the organization continues to function several years after the federal funds were exhausted

attests to the fact that its members and their supporting agencies consider the organization of real benefit.

The most important "product" of WREEC was and is people. Several, but not all, participants grew tremendously in skills and knowledge which led to greater job effectiveness. For these people alone and what they accomplished the project could be labeled a success.

The Project Learning Tree experience was another major accomplishment. It represents a new way of developing programs and materials through industry-education cooperation, and hopefully will be repeated elsewhere.

The exchange of materials between states and agencies was another significant accomplishment. At first, state reports were a "show and tell" kind of thing. Gradually, they developed into give and take sessions in which problems common to all were discussed and active recommendations made.

In balance, WREEC has made, and will continue to make, a contribution to the environmental education field nationally. Although the emphasis was on the west, several activities, such as Project Learning Tree and the Snowmass Conference, plus the fact that we did what we did and were successful at it, had an effect on the national scene. Hopefully, this effect will continue.

WILDLIFE MANAGEMENT INSTITUTE

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The Wildlife Management Institute (WMI) is a national, nonprofit, conservation organization located in Washington, DC. WMI promotes improved management and wise use of wildlife and related natural resources. Its programs are based on the belief that wildlife is a valuable natural resource that should and can be perpetuated.

Wildlife and its habitats seldom can be considered independent of other natural resources and land uses. Timber cutting, farming, ranching and real estate development all can affect wildlife populations adversely. But with intelligent planning and management, lands utilized for these purposes can support a variety of wildlife compatible with economic production. Management can maintain and sometimes enhance a diversity of wildlife species despite intensive, profit-directed land use and increasing demands for wildlife-oriented recreation. WMI believes this management is best carried out through application of scientific facts by trained professionals working with adequate authority and funding. An environmentally aware public is vital in building necessary management programs. If citizens are informed of ecological facts, through environmental or conservation education, they will support scientific resource management.

Professionally Oriented Programs

A major thrust of WMI's educational programs deals with training wildlife professionals. WMI helped initiate and continues to support the Cooperative Wildlife Research Unit Program. Each of the 22 units is sponsored jointly by a university, state conservation department, the U.S. Fish and Wildlife Service, and WMI. The units conduct research on a broad spectrum of wildlife and resource subjects, provide technical assistance and information to the public, and educate graduate students to become wildlife professionals. Since the program's founding in 1935, more than 2,000 students have been trained to deal scientifically with wildlife problems and management programs.

In cooperation with the North American Wildlife Foundation, WMI supports and assists the Delta Waterfowl Research Station in Manitoba, Canada. More than 200 graduate students representing more than 46 Canadian and American universities have conducted research on wetland ecology and waterfowl biology at Delta.

WMI also directly aids the training of wildlife professionals through its ongoing student grant program. WMI issues 10-15 direct financial grants annually to wildlife graduate students. Over the years, more than 200 students have benefitted from this program. WMI grants are limited, however, to topics and subject areas that deal with wildlife directly or are related to resource management programs affecting wildlife.

Since 1915, WMI has sponsored and conducted the North American Wildlife and Natural Resources Conference. Open to the general public, this annual Conference and its many related meetings furnish broad opportunity for exchanges of research findings, management experiences and other vital information. The Conference usually includes one or two general sessions on timely conservation issues and up to six technical or special sessions in which professionals exchange information. All sessions are open to the general public. Conference Transactions are published annually by WMI, and are widely used by students, researchers, resource managers and administrators.

General Informational Programs

In recent years, WMI has begun to focus more on educational programs and materials directed at the general public. From 1972-1975, WMI prepared a series of TV and radio spots emphasizing the need for citizens to recognize and maintain wildlife habitat. These educational announcements were offered free of charge to conservation departments in all 50 states. Judging from summaries forwarded by media stations, they received substantial airplay nationwide.

WMI officers and field representatives periodically give talks and lectures on a broad variety of wildlife-related topics and current resources issues to high school and college classes and citizen groups. They also respond to hundreds of letters each year from school children, teachers, farmers and other citizens--inquiries ranging from simple questions about nature and wildlife to career and educational guidance. WMI field representatives annually participate in high school "career day" programs.

Since the early 1940s, WMI has published a series of authoritative books on major wildlife topics. Recent editions include Ducks, Geese and Swans of North America (1976) by Frank C. Bellrose, Wildlife Management in Wilderness (1977) by Clay Schoenfeld and John Hendee, and Big Game of North America: Ecology and Management (1978), compiled and edited by John L. Schmidt and Douglas L. Gilbert.

WMI also has available informative and timely publications suited to nonprofessional audiences and students. They include:

> Helping Wildlife: Working With Nature by Delwin E. Benson. Published 1977, 32 pages, single copy $1.00, bulk prices available. This is an illustrated teaching and learning guide on principles of wildlife ecology and management. It is directed at teachers and instructors in all areas of natural

resources education. Furthermore, it can be used as a primer by youngsters from ages 8-18, and by all students of wildlife. Basic concepts of wildlife ecology and ecological relationships are identified and discussed in a logical, interesting and readable format supplemented by 16 illustrations and an annotated bibliography.

The American Landscape 1776-1976: Two Centuries of Change by James B. Trefethen. Published 1976, 91 pages, single copy $2.50. Bulk prices available upon request. In two parts, this publication documents, in photographs and text, the dynamic nature of America's landscape during the past 200 years. Part I provides a historical overview describing how various technological developments affected America's landscape. Part II is a pictorial history of landscape changes utilizing then-and-now photographs, many taken more than 100 years apart.

Placing American Wildlife Management in Perspective. Published 1974, 29 pages, single copy 25¢, bulk prices available. This booklet responds to questions being raised today about the purpose and value of wildlife management. Included are discussions of endangered and threatened species, habitat-population relationships, the role of hunting and accomplishments of modern management. It has been used extensively in education programs.

Wildlife: The Environmental Barometer. Published 1971, brochure, single copy free, bulk prices available. This brochure explains man's effects on wildlife and their habitats, and how healthy wildlife environments mean healthy human environments. It has been used extensively in resource education programs and by state conservation and natural resource agencies in public information programs.

WMI also publishes the Outdoor News Bulletin, a bimonthly newsletter on current resource issues and events that is distributed widely to writers, editors and interested citizens in North America.

Overall Educational Approach

WMI's primary approach to educate citizens on natural resources is to generate, sponsor, draft and publish a variety of informational materials to encourage development of constructive attitudes and efforts to maintain and restore renewable natural resources, especially wildlife and its habitats. WMI continues to encourage and assist similar efforts by local, state and federal agencies, colleges, universities, and by responsible individuals, groups and businesses. Factual, timely information--whether prepared by WMI or others--is in the best interest of wildlife and other resources, and its dissemination and use by all citizens is WMI's objective.

--Submitted by:

Laurence R. Jahn
Vice-President

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ZERO POPULATION GROWTH*

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Zero Population Growth, Inc. (ZPG) is midway through the fourth year of its national population education teacher-training program. To date, ZPG's Washington, DC-based professional staff has led or cosponsored 50 workshops in 17 states, directly reaching a total of 2500 teachers, curriculum specialists, school administrators, and professors of education.

The specific goal of the program—supported by grants from the U.S. Office of Environmental Education, the Sunnen, Rockefeller, and Packard Foundations, and donations—is to incorporate population education into the structures utilized by public school systems to introduce innovative topics or methods. The Pop Ed Program's long-range goal: to increase opportunities for students to explore the causes and consequences of population changes and to understand the relationship of population changes to the natural, social, and economic environment. An encouraging first-year finding from a formal program evaluation: 67 percent of the teachers had instituted a population unit at least three hours long into their courses after attending the workshop.

ZPG's program began in July of 1975, a time when it could build on the experiences of earlier population education projects and could utilize the excellent population teaching materials available from the Population Reference Bureau (PRB) and other sources.

There were few teaching materials a decade earlier, when the Urban Life Population Education Institute (ULPEI) of Baltimore began a pioneer effort "from scratch" to introduce population topics into the schools. After ten years of materials development, teacher training, and $250,000 worth of grants, ULPEI achieved its goal; in 1975 population education became an official part of the Baltimore City Public Schools Social Studies curriculum. In the early 1970s, "pop ed" was also given a boost in the state of Washington when the Superintendent of Public Instruction commissioned the development of pop ed materials accompanied by teacher training. Other pop ed projects indicated the interest of teachers in receiving pop ed training and acquiring sound teaching materials. While excellent teaching materials have been produced for almost 50 years by the PRB, and more recently by universities, environmental and other organizations, the U.S. Census Bureau, the UN, and commercial publishers, they are little

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**This report, written by Dr. Elaine Murphy, former Director of Education of Zero Population Growth, Inc., originally appeared in Population Reference Bureau's Intercom in January 1978. It was revised by Thomas Flaherty, current director of the program at ZPG.*

known or used by high school teachers. It appeared that the time was right to develop a way to put many more interested educators in touch with these materials and to provide them with the background and training that encourages the use—not merely acquisition—of the materials.

Thus the ZPG Pop Ed Program began. ZPG, a nonprofit citizens' organization founded in the late 1960s as part of the burgeoning environmental movement, had already been involved in pop ed. Through chapters in 50 states, ZPG volunteers provided support to local teachers—distributing materials, loaning films, serving as classroom speakers, and in several instances organizing workshops. The present program, however, is designed as a national, professional program aimed primarily at "institutionalizing" population topics.

Institutions have ways of promoting change. School systems utilize in-service courses or workshops, curriculum planning or writing teams, promulgation of new materials by subject matter supervisors or department heads, communication of new ideas through teachers' newsletters or meetings, and similar approaches. The ZPG program organizes workshops for those school personnel most likely to utilize these methods of institutionalization. Classroom teachers are still an important part of workshop audiences but they are usually identified by supervisors as teachers with leadership qualities. These highly motivated teachers, department heads, professors of education, curriculum writers, and supervisors of science, social studies, and other relevant disciplines are the workshop participants most likely to share their population education training with others.

What Happens at the Workshops?

The workshops are a mixture of quizzes, films, discussions, small group problem-solving exercises, demonstrations, identification of local resources, role playing, games, and lesson planning. Materials used come mainly from the PRB (World Data Sheet, Sources and Resources, and charts), Worldwatch Institute, Center for Information on America, and other groups although some activities have been designed by the ZPG Population Education staff. The workshops try to answer the teacher's question, "But what will I do on Monday?" Participants are expected to leave the workshops with: (a) basic information necessary to understand population trends; (b) direct experiences with existing pop ed lesson plans, games, and activities, including a brief team curriculum-writing session; (c) knowledge of and access to the many written and audiovisual materials available for pop ed; (d) a packet of pop ed materials directly usable in the classroom—the ZPG Population Education Resources Kit.

The Resources Kit, distributed to all participants, was designed to form the basis of workshop activities. Its "lecture," for example, is based on a written population quiz in the kit and the answers to it. All the lesson plans and activities experienced at the workshops are provided in the kit. Materials and films used or demonstrated are listed, along with purchase information, in its resources

section. Even the outline for the film discussions (which are always lively) is included. The kit serves to reinforce the memory of what is experienced at the workshop and at the same time provide directly usable materials relevant even to people who have not attended the workshop. (The kit is available for $3.00 from ZPG, 1346 Connecticut Avenue, NW, Washington, DC 20036.) Kit developers hope that after working experientially with the materials in the kit, the participants will use the kit to train others. Participants are encouraged to make additions, deletions or adaptations according to the needs of their particular school programs, and are also invited to reproduce any of the lesson plans for classroom use.

What Happened After the Workshops?

The Office of Environmental Education funded a formal evaluation of the first year's workshops (in Delaware, Florida, Maryland, New Jersey and Ohio). Questionnaires were sent to all participants asking about their population education activities after attending the workshop. The validity of the results was established by an independent evaluation by Andrew Leighton, formerly PRB's Assistant Population Education Director. In addition to the 67 percent of teachers who instituted a population unit in their classes, 58 percent of the administrators directed or encouraged the teachers under their supervision to teach about population; and 23 percent of the professors of education organized in-service pop ed workshops for teachers.

The second and third years' workshops in a total of ten states and workshops held at annual meetings of educational organizations (National Science Teachers Association, National Council for the Social Studies) have been evaluated and even more encouraging results have been documented.

The Evolution of a Workshop Model

Building upon the experiences of other projects, research findings, good advice, questionnaires filled out by the workshop participants, and trial-and-error, a ZPG workshop model evolved (as in all evolutionary processes, the "end product" is not static, but allows for variability and change):

1. The identification of cosponsors and participants whose school system positions or other networks enable them to multiply the effectiveness of the workshop. This may be accomplished through in-service courses, newsletters, and other ways.

2. An emphasis on "the local scene" such as (a) pop ed presentations by local teachers, (b) the utilization of locally developed pop ed materials and films from local film libraries, (c) the distribution of lists of local pop ed resources, (d) the inclusion of data on local or state population trends, and (e) the cosponsorship of the

workshops with local educational agencies and other organizations. The purpose of this local emphasis is to stress the fact that the program is a local commitment, not merely a one-time visit from an outside group, and to provide human material resources at the local level after the workshop.

3. The selection of attractive written and audiovisual population teaching materials that come from a variety of sources and which are accurate, fair, appropriate to the needs and interests of the learner, easy to use or adapt and which utilize a large variety of teaching/learning methods.

4. The design of the workshop format around these teaching materials. Thus participants acquire population information, understanding of population dynamics, and values clarification by actually doing the quizzes, exercises, role playing, games, and discussions that they will use directly (or adapt) in their teaching programs. The written form of the workshop activities is then provided to each participant in the ZPG Population Education Resources Kit.

5. The provision of follow-up help with the implementation of participants' post-workshop plans for population education. This consists of occasional mailings of progress reports, data on participants' post-workshop activities, and notices about the samples of new materials. Help in planning "spinoff" teacher-training workshops and obtaining free or low cost materials is also given. All participants receive Interchange, the PRB's pop ed newsletter, which contains a topical essay, an annotated resource list, and a useful teaching module. The purpose of this continued contact is to keep alive the enthusiasm for population education engendered by the workshop and to provide additional teaching tools.

The third year included workshops for 125 Boston area educators, 60 junior high science teachers in Fairfax, Virginia and the superintendent, subject matter supervisors, department heads, and teachers of a required high school economics course of the Richmond, Virginia Public Schools. After a workshop in Indiana the program broke the "Mississippi barrier" with workshops in New Mexico and California. In November 1977, ZPG (with an Office of Environmental Education grant) invited 26 leaders of grassroots organizations and school systems to Washington for two days of pop ed leadership training.

The fourth year included workshops in California and Wisconsin, and again at various educational organization conventions.

Where Do We Go From Here?

Heading the list of hopeful signs is the proposed Population Education Act introduced in Congress last term by Representative James Scheuer (D-NY). The legislation would establish a large-scale grant program for such areas as pop ed teacher training, curriculum development and dissemination, and research. Readers interested in details of the proposed measure should write to Cathy Parks, c/o Representative James Scheuer, House of Representatives, Washington, DC 20515.

As interest, effort, and funding increase, a future survey of American teachers may well find that population education has earned its appropriate niche as one of the "basics."

ENVIRONMENTAL EDUCATION PUBLICATIONS

SMEAC INFORMATION REFERENCE CENTER

The reports of three recent national conferences sponsored by the Alliance for Environmental Education have been published by, and may be ordered from, SMEAC Information Reference Center, 1200 Chambers Road, Columbus, OH 43212. They are:

ED 121 595: Rudolph J. H. Schafer and John F. Disinger, Environmental Education Perspectives and Prospectives: Key Findings and Major Recommendations (of the Snowmass Conference on Environmental Education, July 6-12, 1975). 1975; 28 pages; $1.00.

ED 121 612: Rudolph J. H. Schafer and John F. Disinger, Environmental Education Perspectives and Prospectives: Supporting Documentation (of the Snowmass Conference on Environmental Education, July 6-12, 1975). 1975; 87 pages; $2.00.

ED 143 505: James L. Aldrich, Anne M. Blackburn, and George A. Abel, A Report on the North American Regional Seminar on Environmental Education (St. Louis, October 5-8, 1976). 1977; 112 pages; $2.50.

ED 159 046: William B. Stapp, From Ought to Action in Environmental Education: The Report of the National Leadership Conference on Environmental Education (Washington, March 28-30, 1978). 1978; 104 pages; $3.00.